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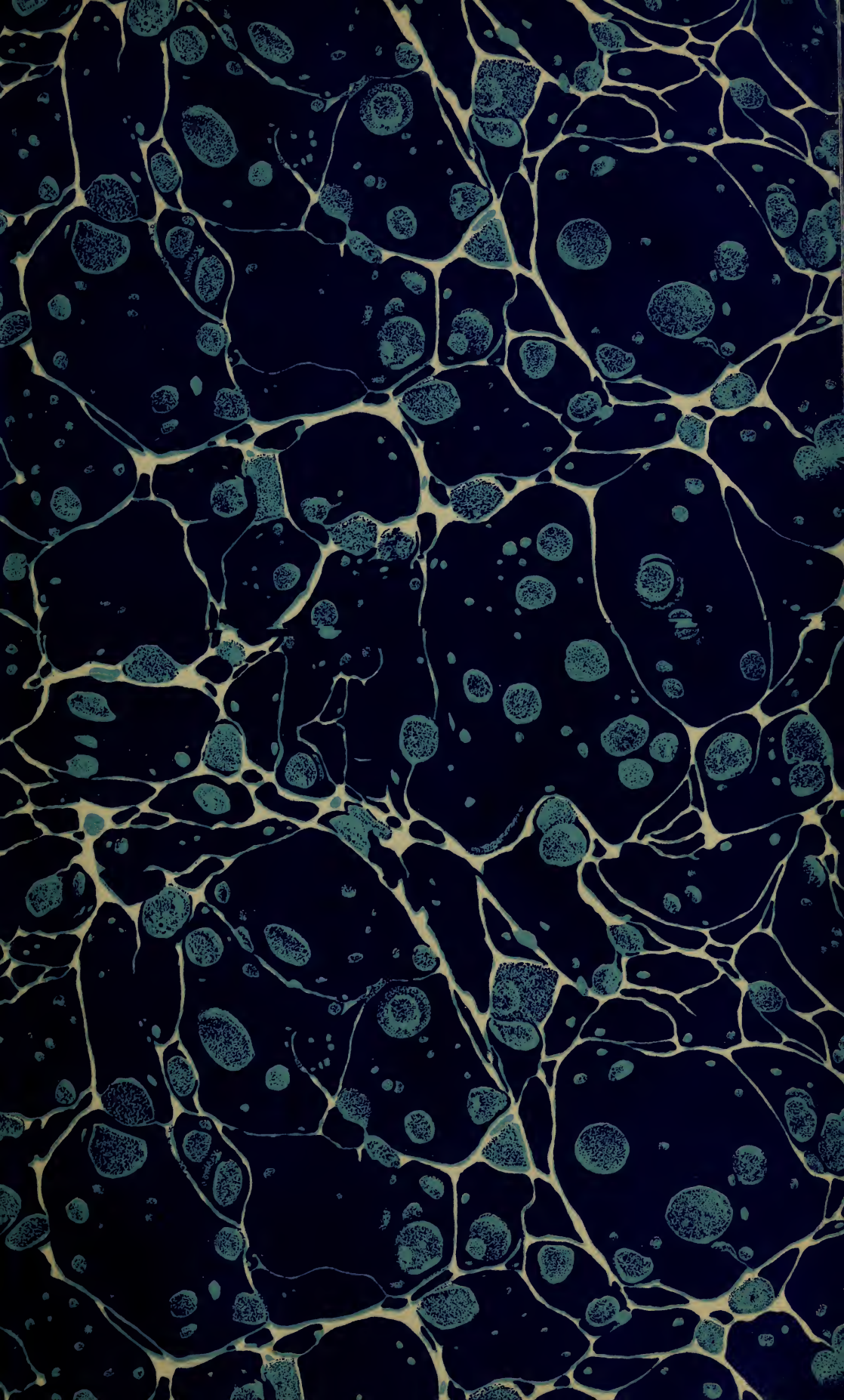
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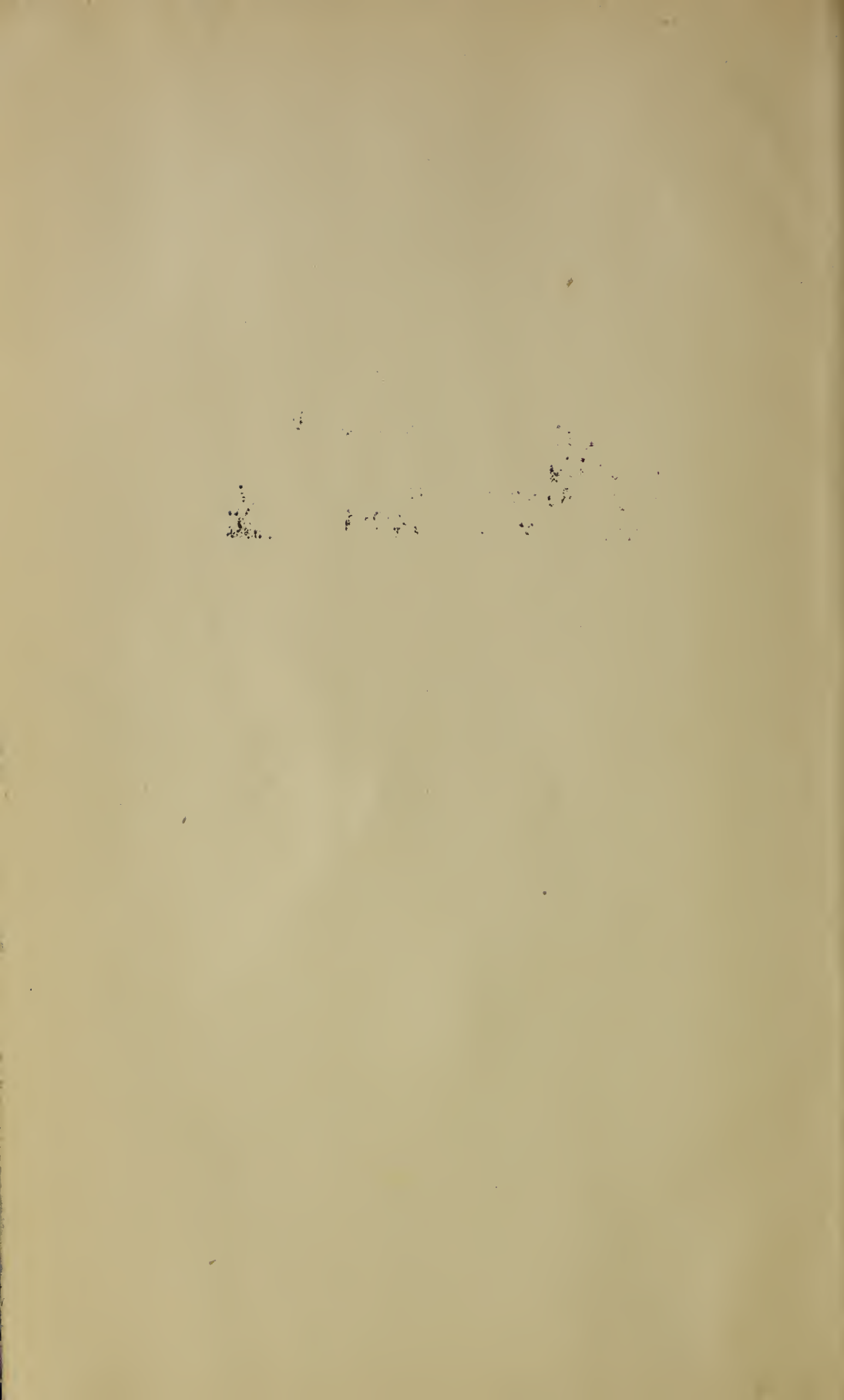
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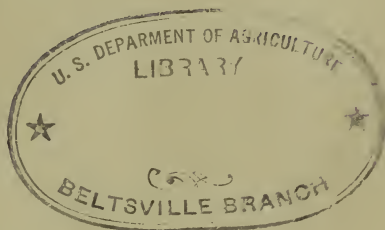
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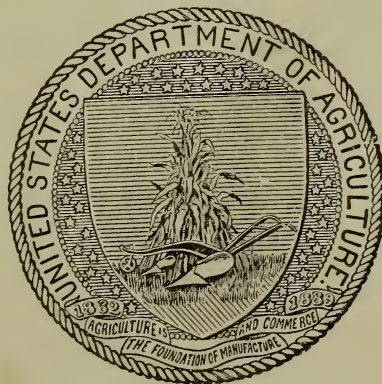
TO

EXPERIMENT STATION RECORD

Vols. I to XII, 1889-1901

AND TO

EXPERIMENT STATION BULLETIN NO. 2



WASHINGTON
GOVERNMENT PRINTING OFFICE
1903

EXPERIMENT STATION RECORD.

Editor: E. W. ALLEN, PH. D., *Assistant Director.*

EDITORIAL DEPARTMENTS.

Chemistry, Dairy Farming, and Dairying—The EDITOR and H. W. LAWSON.
Meteorology, Fertilizers and Soils (including methods of analysis) and Agricultural Engineering—W. H. BEAL.
Botany and Diseases of Plants—WALTER H. EVANS, Ph. D.
Foods and Animal Production—C. F. LANGWORTHY, Ph. D.
Field Crops—J. I. SCHULTE.
Entomology and Veterinary Science—E. V. WILCOX, Ph. D.
Horticulture—C. B. SMITH.
With the cooperation of the scientific bureaus and divisions of the Department.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
Washington, D. C., August 8, 1903.

SIR: I have the honor to transmit herewith for publication a General Index to Experiment Station Record, Volumes I to XII, inclusive, and to Experiment Station Bulletin No. 2, the latter being a digest of the Annual Reports of the Experiment Stations for 1888. The Record and the digest together make the review of the experiment station work complete from the establishment of the stations under the Hatch Act in 1888 down to the close of the year 1900. The volumes of the Record also include abstracts of the publications of this Department, and quite comprehensive reviews of the literature of agricultural science and experimentation in foreign countries.

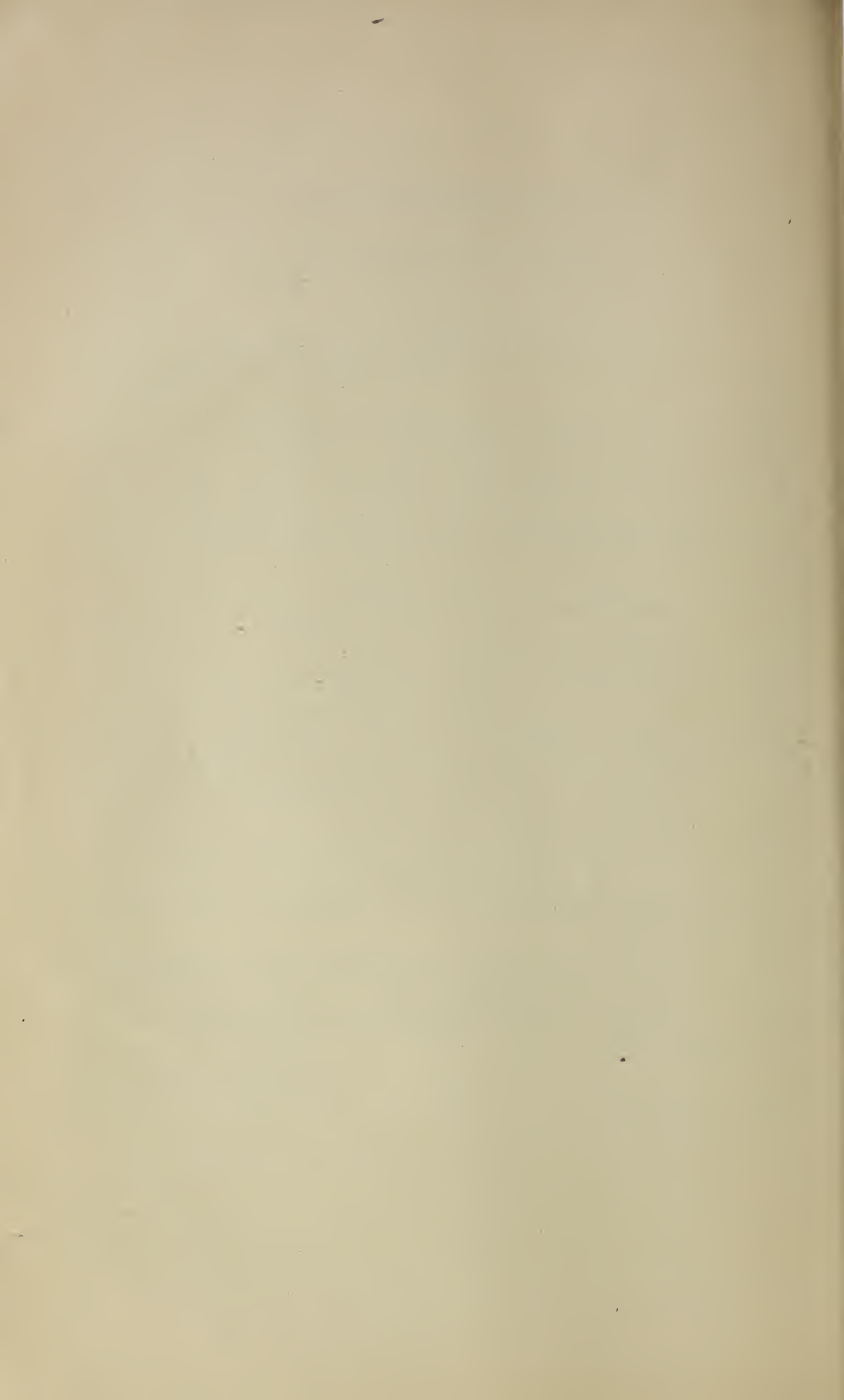
The indexes to this vast amount of published information are now contained in fourteen separate volumes, and reference to these is frequently necessary in looking up the literature upon a given subject. This at present is inconvenient. As the volumes of Experiment Station Record accumulate, it becomes increasingly valuable for reference purposes, and there have been repeated requests for a general index. Such an index, it is believed, will be a very great convenience to all who have occasion to look up the work of the twelve years covered by it, during which such remarkable progress has been made in agricultural science and practice.

Much of the preliminary work connected with the preparation of this index and the proof reading have been in charge of Mr. William Henry of this Office, to whom acknowledgment is here made.

Respectfully,

E. W. ALLEN,
Acting Director.

Hon. JAMES WILSON,
Secretary of Agriculture.



INTRODUCTION.

The permanent value of an abstract journal depends upon its indexes. For this reason the index to Experiment Station Record has been made a feature of each succeeding volume, and the effort has been from the first to make it quite complete. Matters are frequently enumerated in the abstract for the express purpose of getting them into the index, rather than because they are of particular interest in connection with the work reported.

The Record index is thus a detailed index to the experiment station and other publications reviewed, and as its volumes have accumulated this has become one of its most important features. Every year adds to its value as a means of looking up the literature on a particular subject, and likewise emphasizes the desirability of a general index. The preparation of such an index has been in hand for some time, but has proved a much greater undertaking than was anticipated, and this has delayed its issue. The grouping of the entries must be more carefully considered than in the case of the annual index, since, on account of its size, slight differences in the wording of the entry may separate closely related subjects so widely that they will not easily be found. The usefulness of many general indexes is largely defeated by reason of this.

To be convenient for use the general index must be arranged according to topics rather than words, and must follow a definite plan consistently, with frequent double entries and numerous cross references. This is a nice piece of work requiring both skill as an indexer and, what is quite as important, technical knowledge of the matter indexed. With so wide a range of subjects as are covered by the Record the task is especially difficult, calling for the combined assistance of the editorial staff in some parts.

The plan of making the annual index of the Record has been a gradual evolution, and the system of entries has not been uniform throughout the twelve volumes. This lack of uniformity has increased the difficulties of combining the entries into a general index, as slight differences in the form of entry or in the catchword used were sufficient to divide subjects widely and in a way that was often very diffi-

cult to detect and remedy. It has not been possible in the time at our command to correct all of the inconsistencies in so voluminous an index, although a great deal has been done to systematize it and to perfect the topical arrangement. While, therefore, the general index is recognized as having imperfections, it is hoped that these will not prove of a character to seriously impair its usefulness.

The topical plan of arrangement has been followed throughout, with usually a double entry for all important subjects and numerous cross references. As a rule the entries have been made for individual subjects rather than collective terms. The references under general terms are therefore incomplete. In the case of feeding experiments, for example, no attempt has been made to bring the entries all together, but the plan has been to group them under both the animal and the principal feeding stuffs tested. When another factor enters in, as milk production in the case of cows, certain of the references are found under the subject of milk. The purpose of the experiment has been considered in each case, and the attempt made to make the entries under that topical heading complete in themselves or by means of cross references. The field experiments with fertilizers have been put under the crop, and frequently under the fertilizer also. Studies relating to the assimilation of nitrogen from the air by plants, which in the past have been indexed under a multitude of catchwords, have been grouped under the three general headings, "Nitrogen assimilation," "Root tubercles," and "Soil inoculation," and numerous cross references given from other catchwords which might naturally suggest themselves to the reader. The point of view of the user has been kept prominently in mind, and it is thought that the general plan followed will be apparent after a little use, so that confusion and uncertainty will be avoided.

A strictly alphabetical arrangement has been followed, although this often separates the singular from the plural, as in the case of "pea" and "peas." Where this occurs there are cross references from each heading. The general entries have been made under the plural in the case of crops, fruits, etc., and the singular confined mainly to its use as an adjective prefix.

Institutions are found under the country or place of location, when this forms a part of the name. The references to the individual American stations under the different topics, which have been given in the indexes to the individual volumes, have been omitted in the interest of saving space and because they seemed of less importance in a general index. For the same reasons no attempt has been made to consolidate the author or name indexes, the general index being confined to the subject matter.

The consolidated table of contents lists the bulletins and reports of the stations and this Department which were reviewed in the digest

and first twelve volumes of the Record, enabling the abstract of any of these publications to be turned to readily.

The index contains about 125,000 entries, arranged under nearly 55,000 divisions and subheads. It covers all of the experiment station and Department publications received for abstracting up to the beginning of January, 1901, and nearly all of the foreign literature up to that time. It, therefore, brings the index of this literature practically down to the close of the year 1900; and as it dates from the beginning of the experiment stations under the Hatch Act, it covers a period of the greatest activity in the development of agricultural science.

The publication of Experiment Station Record was commenced in 1889, under the direction of Prof. W. O. Atwater, Director of the Office at that time. The original plan was to make it "a current record, in brief outline, of the results of experiment station and kindred work," and to confine it to abstracts of the experiment station bulletins and the publications of the U. S. Department of Agriculture. The annual reports were to be treated in a "digest," including "such outlines and details of the station work as will be most useful for permanent record and convenient reference." The digest of the reports for 1888 was published in two parts as Experiment Station Bulletin No. 2. This plan was not continued, but with the beginning of the second volume of the Record the annual reports were included in the abstracts, along with the bulletins. The review was extended during the second volume to include the work of the Canadian stations, and a very modest beginning was made in abstracting reports of similar investigations carried on abroad.

In the first three volumes and the digest the abstracts were grouped by stations or countries, without regard to topic, but with the beginning of the fourth volume the abstracts of the station publications were arranged topically, the reviews of the Department and of foreign publications being grouped by themselves. Beginning with the sixth volume, however, all of the abstracts were brought together, without regard to source, and grouped by subjects. This topical arrangement has been found a matter of convenience to the readers of the Record, in spite of the difficulties of classification which often occur, and has made it practicable to divide the editorial work into departments, with a definite field assigned to each of the assistant editors.

The review of the foreign investigations has increased steadily, and for several years past has included practically all of the more important investigations bearing on agricultural science which have been available to the editorial staff. The volume of this literature has become so great and it is so widely scattered that the station worker and agricultural specialist must depend mainly upon the abstract journal to keep posted on what is being published in his line. The Record

occupies a field that is not covered by any other abstract journal, and is one of the means which the Department of Agriculture has taken to promote the work of the agricultural colleges and experiment stations and to disseminate the results of their work in a technical form. The quite limited library facilities of many of the stations and agricultural colleges emphasize the need of such a publication.

As the station work progresses and becomes more specialized increasing attention to what has been done in the past is very desirable. One of the criticisms which is made upon the American stations is the large amount of duplication in their work, especially in the more popular practical experiments. These experiments have served to demonstrate certain facts to the local farmers, and are now very properly giving way to more advanced work. A survey of the literature should be one of the first steps taken in attacking a new problem, and this will not only save time, but make the work more effective from the start.

It is hoped that the general index will be an aid to that end, and will enhance the value of the Record files for general reference purposes, by making the matter contained in them more readily and conveniently accessible.

E. W. ALLEN.

CONSOLIDATED TABLE OF CONTENTS.

EDITORIAL NOTES.

VOLUME I.

	Page.
Third annual convention of the Association of American Agricultural Colleges and Experiment Stations	57
Statistics of the stations in the United States	117
Statistics of the German agricultural experiment stations.....	175
Agricultural investigations in Canada	245
International Agricultural Congress at Vienna.....	246
Imperial College of Agriculture and Dendrology, Tokyo, Japan.	247
Suggestions as to investigations in dairying.....	247
Facts relating to new colleges and stations	248
Need of better methods of investigation.....	309
Concerning the character of station publications.....	310

VOLUME II.

New features of Experiment Station Record.....	1
Farmers' bulletins.....	1
The proper use of station funds.....	41
The seventh annual convention of the Association of Official Agricultural Chemists	89
The sugar-beet industry	93
Report of Professor Wilckens, of Vienna, on the American stations	139
Need of better methods in investigations of food and feeding stuffs.....	185
The fourth annual convention of the Association of American Agricultural Colleges and Experiment Stations	265
The Association of Economic Entomologists.....	269
Statistics of the agricultural experiment stations in the United States	309
Institutions for agricultural education and research in Japan	310
The publication of abstracts of the annual reports of the stations.....	313
Agricultural experiment stations in Austria	385
Abstracts in the Record from reports of European investigations.....	389
Subject classification of the table of contents of the Record	390
The application of alcohol in the manufacture of sorghum sugar.....	469
Veto of a bill to distribute the station funds in Alabama	470
Financial statistics of the stations.....	471
The appropriation bill for the U. S. Department of Agriculture, 1891-92	472
Farm experiments.....	541
Suggestions regarding the horticultural work of the stations.....	625
Need of specialists at experiment stations	626
The second volume of the Record	699
Agricultural experiment stations in Holland	700

VOLUME III.

Page.

Changes in the organization of the Office of Experiment Stations	1
The agricultural experiment station at Göttingen, Germany, and Professor Henneberg	1
Investigations at Rothamsted	73
The fifth annual convention of the Association of American Agricultural Colleges and Experiment Stations	139
The meeting of representatives of the German experiment stations at Halle in September, 1891.....	207
Recent German methods for pot, box, and plat experiments	275
Agricultural experiment stations in Java.....	278
Notes on progress in agricultural research in 1891.....	365
General index of station literature.....	367
Statistics of the agricultural experiment stations in the United States for 1891.....	439
Institutions for agricultural education and research in France	440
Some lessons from recent feeding experiments in Prussia.....	507
Meteorological work for agricultural colleges and experiment stations.....	585
Need of investigation of the fermentations of silage	587
Problems in soil investigations	665
Improvement of American grasses and cereals by increasing the nitrogen content	671
Index to mycological literature.....	759
Suggestions regarding station publications.....	760
Requirements of experiment station work in the South	841
The third volume of Experiment Station Record.....	842

VOLUME IV.

Changes in the arrangement of the Record.....	1
Notes on feeding standards.....	2
Bacteriology in relation to agriculture	111
The appropriation bill for the Department of Agriculture, 1892-93.....	114
The preservation of barnyard manure.....	231
Dehérain's treatise on agricultural chemistry.....	232
Koch's test for tuberculosis	323
Milk tests in feeding experiments	324
Experiment stations in Portugal and Roumania	325
Courses of study for specialists in agricultural institutions	395
Importance of physical factors in field experiments.....	455
Recent compilations of analyses of feeding stuffs.....	525
Butter-making in Denmark	526
Agricultural statistics as related to experimental work	527
Two factors often disregarded in the purchase of feeding stuffs	625
The Belgian system of agricultural education.....	701
Electricity in agriculture.....	702
Home-mixing of fertilizers.....	791
Seed testing.....	792
Experiments in potato culture in France.....	879
The fourth volume of Experiment Station Record.....	881

VOLUME V.

Changes in the organization of the Office of Experiment Stations	1
Investigations on the food of man	1
Work by the U. S. Department of Agriculture in behalf of good roads	2
Belgian National Library of Agriculture	2

	Page.
The care and use of manure.....	139
The convention of the Association of Colleges and Stations at Chicago.....	269
The Agricultural congresses at Chicago	269
Experiment station workers in the dairy test at the Columbian Exposition....	270
Need of investigations in vegetable physiology at the stations	270
The Halle Station	359
Fleischmann's Manual of Dairying	360
Experiment stations in Japan	361
The meeting of the American Chemical Society, 1893	453
Chemical methods of the Halle Experiment Station	455
The German Agricultural Society.....	547
Proposed seed collection and testing by the Division of Botany	667
Corn and soja-bean silage as a feeding stuff.....	668
The fertilizers and feeding stuffs act of England	745
The experiment station at Bernburg	747
Division of Agricultural Soils in the U. S. Department of Agriculture	831
The function of humus in the soil	832
Agrostologist of the U. S. Department of Agriculture	834
Cheese investigations at the New York State Station.....	941
Agricultural education in Denmark.....	942
The National Live Stock and Sanitary Association	1041

VOLUME VI.

Investigations by Prof. Gustav Kühn	1
Methods of artificial digestion.....	2
Changes in the Record	4
Irrigation in humid regions	89
Investigations relating to human foods.....	90
Supervision of expenditures of experiment stations by the Department of Agriculture	175
Government supervision of experiment stations in France.....	175
Some features of the system of agricultural education and research in France..	176
Journal of the British Board of Agriculture	255
Nutritive value of wheat for animals.....	255
Misuse of results of fertilizer tests	256
The question of feeding standards	349
Garden herbaria	489
Danish coöperative feeding experiments with milch cows	585
Agricultural appropriation bill, 1895-96.....	679
Abstract Committee of Association of Official Agricultural Chemists	759
Need of course of instruction for experts in soil investigations	759
Control of American clover seed.....	851
Establishment of Dairy Division	852
Seed control stations of the world	945

VOLUME VII.

English report upon experiment stations and agricultural colleges of the United States	1
The Sixth International Veterinary Congress.....	2
Pot <i>v.</i> field experiments.....	75
Notes on the ninth annual convention of the Association of American Agricul- tural Colleges and Experiment Stations.....	167
Soil investigations in connection with field experiments.....	261
Association of Official Agricultural Chemists, 1895	261

	Page.
Abstract committee of Association of Official Agricultural Chemists	262
Lessons from the work at Rothamsted, England.....	343
The limitations of experiment station work	435
The production of muscular energy	535
Specialization in experiment station work.....	633
Irrigation investigations	634
Agricultural appropriation bill, 1896-97	723
Investigations on animal metabolism	815
Duration of tests of varieties	903

VOLUME VIII.

The Hungarian National Millennium Exposition	1
Experiment station in German East Africa.....	1
Experiments on the physiology of cultivated plants.....	2
The Second International Congress of Applied Chemistry	95
Suggestions regarding the improvement of station publications	177
The factor for protein in foods and feeding stuffs	269
European experiment stations.....	355
A suggestion to agricultural investigators drawn from the science of economics.....	445
The Association of German Experiment Stations, 1896	446
Report to Congress on the work and expenditures of the experiment stations.....	539
The nitrogen-free extract of feeding stuffs.....	639
Emil von Wolff and Georges Ville.....	739
Agricultural appropriation bill, 1897-98	839
Investigations on the preservation and management of barnyard manure.....	840
Effect of food upon the composition of milk.....	939

VOLUME IX.

Feeding stuffs control.....	1
Metabolism in calves	101
The constitution of fat globules.....	102
Education and research in Russia.....	201
Some new discoveries on the ripening of cheese	205
Distinction between agricultural college and experiment station work.....	301
Agriculture in Alaska.....	401
Studies on the influence of climate on crops	501
Some unfortunate tendencies in station work.....	601
Statistics of the agricultural colleges and the experiment stations, 1897	701
The new building of the College of Agriculture of the Ohio State University..	801
Government investigations in Alaska	803
Agricultural appropriation bill, 1898-99	901
Metabolism experiments in relation to the nutrition of man and domestic animals.....	1001

VOLUME X.

The reading course as a factor in agricultural education	1
Agricultural experiment stations in Japan.....	101
Irrigation investigations	201
An Egyptian school of agriculture	202
The late Dr. E. Lewis Sturtevant.....	301
National Society of Agriculture in Egypt.....	303
The late Senator Justin S. Morrill	501

	Page.
Experiment station movement in Russia	601
Present status of the experiment stations in Russia	603
Agricultural experiment station in Alaska	701
Agricultural appropriation act, 1899-1900	801
Irrigation investigations of the Department of Agriculture	901
Statistics of land-grant colleges and agricultural experiment stations, 1898....	1003

VOLUME XI.

Scientific aids, Department of Agriculture	1
Editorial management of the Record	2
The new Imperial Agricultural Department for the West Indies	101
The late Henry Lévêque de Vilmorin	201
Plant breeding and selection as a feature of experiment station work	202
Veterinary work of the experiment stations	301
Two views of the functions of experiment stations	401
The development of the respiration calorimeter	501
Experiment station exhibit for the Paris Exposition	601
Occurrence of leucocytes in normal milk	701
Causes of the changes in ripening cheese	702
Statistics of agricultural colleges and experiment stations for 1899	801
Comments on the work of the stations for 1899	803
Recent investigations on Texas fever	901
The services of President J. H. Smart and Prof. G. E. Morrow	1001

VOLUME XII.

The promotion of agriculture in Russia	1
Agricultural experiment stations for Hawaii and Porto Rico	2
International congresses of agricultural experiment stations and of agricultural education at Paris	101
The late Sir John Bennet Lawes	201
The influence of the Rothamsted Experiment Station	203
Experiment stations' exhibits at the Paris Exposition	301
Need of more perfect organization of the experiment stations	401
Differentiation of the investigator from the teacher	403
Some recent bibliographic helps	501
Protection of crops from hail	502
The scope and management of the veterinary work of the experiment stations	601
Investigation of soils in Russia	701
Variety testing at Woburn Experimental Fruit Farm	703
Cheese curing in the light of the enzym theory	801
The agricultural appropriation act, 1901-2	803
Experiment station farms, and the movement for their establishment in Germany	901
The Hawaii Experiment Station	1001
Maxime Cornu, botanist, horticulturist, and agriculturist	1002

SPECIAL ARTICLES.

VOLUME II.

	Page.
Compilation of analyses of American feeding stuffs.....	701

VOLUME III.

Function of the root tubercles of leguminous plants.—A review, H. W. Conn..	56
An error in our agricultural production and the remedy, W. O. Atwater.....	672

VOLUME IV.

Feeding standards for domestic animals, Julius Kühn.....	6
Convention of Association of Official Agricultural Chemists, 1892.....	115
Institutions for agricultural investigation in Italy, L. Paparelli.....	233
Agricultural education in Italy, L. Paparelli.....	326
Sixth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1892.....	397
Suggested experiments in breeding, W. H. Brewer.....	458
Relation of the physical properties of the soil to the cultivation of plants, Ewald Wollny	528, 629
Agricultural education in Belgium, Paul De Vuyst.....	703
The object and methods of seed investigation, and the establishment of seed-control stations, Oscar Burchard.....	793, 882

VOLUME V.

Investigations at the Grignon Agricultural Experiment Station, Emile Demoussy	3
Farm manure, A. Hébert.....	141
Seventh annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1893.....	272
The agricultural experiment station at Halle, Germany.....	363
Apparatus and methods of analysis employed at the agricultural experiment station at Halle, Germany.....	457
Agricultural experiment stations in Belgium, A. Petermann.....	550
Experiment stations in Holland, W. O. Atwater.....	669
The experiment station at Bernburg, Germany, and its methods of sand culture, H. Hellriegel.....	749
Methods of sterilized sand cultures employed at the Bernburg Experiment Station, H. Hellriegel.....	835
A review of recent work on dairying, E. W. Allen.....	943, 1043

VOLUME VI.

American digestion experiments, W. H. Jordan.....	5
Forage plants of secondary or undetermined importance for the Southern States, and the composition of forage plants grown in the South, S. M. Tracy	91
Convention of Association of Official Agricultural Chemists, 1894.....	178
Eighth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1894.....	257
Nitrification in arable soils, P. P. Dehérain.....	353, 491
Heat equivalent of the nutrients of food, F. Stohmann.....	590
Agricultural investigation in Switzerland, A. Grete.....	681
Physical properties of the soil, E. Wollny.....	761, 853, 948

VOLUME VII.

	Page.
The Darmstadt Experiment Station, J. B. Lindsey	3
Wagner method of pot culture, J. B. Lindsey	77
Ninth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1895.....	169
Convention of Association of Official Agricultural Chemists, 1895.....	263
The principles and methods of breeding cultivated plants, G. Liebscher.....	347
Suggestions for investigations in vegetable physiology, with special relation to agriculture, G. L. Goodale	438
The metabolism of nutrients in the animal body and the source of muscular energy, N. Zuntz	538
Farmers' institutes, A. C. True and F. H. Hall	635
The pathology of plants: Lines of investigation that might be undertaken by experiment stations, B. T. Galloway.....	725
The excretion of metabolized nitrogen by animals, C. F. Langworthy.....	817
Nitrogen assimilation in its application to practical agriculture.....	906

VOLUME VIII.

The physiological rôle of water in plants, E. Gain	3
The formation of fat in the animal body, Selik Soskin.....	179
Convention of Association of Official Agricultural Chemists, 1896, W. H. Beal..	272
Dairy work at the experiment stations, E. W. Allen	359
The ninth annual convention of the Association of German Agricultural Experiment Stations, 1896, Oliver L. Fassig	447
Tenth annual convention of the Association of American Agricultural Col- leges and Experiment Stations, 1896, W. H. Beal	541
Nitrogen-free extract of plants and feeding stuffs, B. Tollens.....	641
A review of publications on agricultural botany issued in France during 1896, E. Gain.....	841, 940

VOLUME IX.

Agricultural associations in Belgium, P. de Vuyst.....	3
The aims and tendencies of the German agricultural experiment stations, M. Maercker	103, 207
Eleventh annual convention of the Association of American Agricultural Col- leges and Experiment Stations, 1897, W. H. Beal.....	303
Convention of Association of Official Agricultural Chemists, 1897, W. H. Beal..	404
The methods of determining the digestibility of feeding stuffs, O. Kellner....	504
Agricultural education and research in the Scandinavian countries and Finland, F. W. Woll	605, 703
Origin and formation of organic matter in plants, P. P. Dehérain	903
The value of experiments on the metabolism of matter and energy, C. F. Langworthy.....	1003

VOLUME X.

Scandinavian seed-control stations, F. W. Woll.....	4
Physical and meteorological researches, principally on solar rays, made at the station of agricultural climatology at the observatory of Juvisy, Camille Flammarion	103, 203
Official methods of analysis of fertilizers and feeding stuffs adopted by the Belgian State laboratories and the agricultural experiment stations of Holland	304

	Page
Biological and dairy building of New York State Experiment Station	401
Convention of Association of Official Agricultural Chemists, 1898, W. H. Beal..	504
Twelfth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1898, W. H. Beal	704
Investigations on the metabolism of milch cows, Oscar Hagemann.....	803, 903

VOLUME XI.

Selection and its effects on cultivated plants, Henry L. de Vilmorin.....	3
Convention of Association of Official Agricultural Chemists, 1899, E. W. Allen.	204
Thirteenth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1899, E. W. Allen.....	405
Artificial changes of physical properties of soils, Ewald Wollny	604
Adaptation of methods of cultivation and manuring to the physical properties of soils, Ewald Wollny	805

VOLUME XII.

Notes on horse feeding, E. Lavalard	4
New agricultural building at Kansas State Agricultural College.....	103
International congresses of horticulture, viticulture, and agriculture at Paris, W. H. Evans, Ph. D	205
Fourteenth annual convention of the Association of American Agricultural Colleges and Experiment Stations, 1900, E. W. Allen.....	405
Convention of Association of Official Agricultural Chemists, 1900, D. W. May.	503
New building for the College of Agriculture at the University of Illinois	604
Russian soil investigations	704, 807

EXPERIMENT STATION PUBLICATIONS.

Alabama Canebrake Station.

	Volume and page.
First An. Rpt., 1888	Bul. 2, I, 23
Bul. 3, Jan., 1889.....	Rec. I, 8
Bul. 4, Apr., 1889.....	Rec. I, 187
Bul. 5, July, 1889.....	Rec. I, 187
Bul. 6, Oct., 1889.....	Rec. I, 188
Bul. 7, Feb., 1890	Rec. II, 10
Bul. 8, Apr., 1890	Rec. II, 196
Bul. 9	Rec. II, 270
Second An. Rpt., 1889.....	Rec. II, 315
Bul. 10, Dec., 1890	Rec. II, 473
Third An. Rpt., 1890	Rec. II, 549
Bul. 11, Feb., 1891	Rec. II, 628

	Volume and page.
Bul. 12, Oct., 1891.....	Rec. III, 370
Bul. 13, Dec., 1891.....	Rec. III, 590
Bul. 14, Mar., 1892.....	Rec. III, 762
Bul. 15, July, 1892.....	Rec. IV, 254
Bul. 16, July, 1893.....	Rec. V, 581
Bul. 17, July, 1893.....	Rec. V, 586
Twelfth An. Rpt., 1897....	Rec. X, 628, 693, 697
Bul. 18, Mar., 1895..	Rec. X, 846, 854, 896
Thirteenth An. Rpt., 1898.	Rec. XI, 240, 241, 251, 295

Alabama College Station.

First An. Rpt., 1888	Bul. 2, I, 21
Bul. 3 (n. s.), Jan., 1889.....	Rec. I, 3
Bul. 4 (n. s.), Feb., 1889.....	Rec. I, 5
Bul. 5 (n. s.), Apr., 1889.....	Rec. I, 5
Bul. 6 (n. s.), July, 1889.....	Rec. I, 183
Bul. 7 (n. s.), Oct., 1889.....	Rec. I, 184
Bul. 8 (n. s.), Nov., 1889.....	Rec. I, 184
Bul. 9 (n. s.), Dec., 1889.....	Rec. I, 185
Bul. 10 (n. s.), Jan., 1890.....	Rec. II, 8
Bul. 11 (n. s.), Feb., 1890.....	Rec. II, 8
Bul. 12 (n. s.), Feb., 1890.....	Rec. II, 9
Bul. 13 (n. s.), Mar., 1890.....	Rec. II, 45
Bul. 14 (n. s.), Apr., 1890.....	Rec. II, 141
Bul. 15 (n. s.), Apr., 1890.....	Rec. II, 143
Bul. 16 (n. s.), June, 1890	Rec. II, 191
Bul. 17 (n. s.), July, 1890.....	Rec. II, 193
Bul. 18 (n. s.), Aug., 1890	Rec. II, 193
Bul. 19 (n. s.), Oct., 1890.....	Rec. II, 270
Bul. 20 (n. s.), Nov., 1890.....	Rec. II, 314
Second An. Rpt., 1889.....	Rec. II, 314
Bul. 21 (n. s.), Dec., 1890.....	Rec. II, 547
Bul. 22 (n. s.), Jan., 1891.....	Rec. II, 548
Third An. Rpt., 1890	Rec. II, 628
Bul. 23 (n. s.), Feb., 1891	Rec. II, 710
Bul. 24 (n. s.), Feb., 1891	Rec. II, 711
Bul. 25 (n. s.), Apr., 1891.....	Rec. III, 6
Bul. 26 (n. s.), Apr., 1891.....	Rec. III, 6
Bul. 27, May, 1891.....	Rec. III, 7
Bul. 28, Nov., 1891.....	Rec. III, 443
Bul. 29, Nov., 1891.....	Rec. III, 588
Bul. 30, Nov., 1891.....	Rec. III, 588
Bul. 31, Nov., 1891.....	Rec. III, 589
Bul. 32, Nov., 1891.....	Rec. III, 589
Bul. 33, Dec., 1891.....	Rec. III, 684

Bul. 34, Jan., 1892.....	Rec. III, 684
Bul. 35, Jan., 1892.....	Rec. III, 685
Bul. 36, Mar., 1892.....	Rec. III, 844
Bul. 37, Apr., 1892.....	Rec. III, 845
Bul. 38, July, 1892.....	Rec. IV, 337
Bul. 39, Nov., 1892.....	Rec. IV, 649
Bul. 40, Jan., 1893.....	Rec. IV, 644
Fourth An. Rpt., 1891.....	Rec. IV, 665
Bul. 41, Dec., 1892.....	Rec. IV, 830
Bul. 42, Jan., 1893.....	Rec. IV, 803
Bul. 43, May, 1893.....	Rec. V, 78
Bul. 44, May, 1893.....	Rec. V, 47
Bul. 45, June, 1893.....	Rec. V, 63
Bul. 46, June, 1893.....	Rec. V, 73
Bul. 47, July, 1893.....	Rec. V, 298
Bul. 48, July, 1893.....	Rec. V, 287, 289
Fifth An. Rpt., 1892.....	Rec. V, 415
Bul. 49, Oct., 1893.....	Rec. V, 577, 583
Bul. 50, Nov., 1893.....	Rec. V, 592
Bul. 51, Oct., 1893.....	Rec. V, 785
Sixth An. Rpt., 1893.....	Rec. V, 797
Bul. 52, Jan., 1894.....	Rec. V, 862
Bul. 53, Jan., 1894.....	Rec. V, 897
Bul. 54, Feb., 1894.....	Rec. V, 981
Bul. 55, Apr., 1894.....	Rec. VI, 145
Bul. 56, May, 1894.....	Rec. VI, 288
Bul. 57, May, 1894.....	Rec. VI, 290
Bul. 58, Aug., 1894.....	Rec. VI, 964
Bul. 59, Jan., 1895.....	Rec. VI, 982
Bul. 60, Jan., 1895.....	Rec. VI, 982
Bul. 61, Jan., 1895.....	Rec. VII, 43
Bul. 62, Feb., 1895.....	Rec. VII, 25
Bul. 63, Feb., 1895.....	Rec. VII, 110
Bul. 64, Feb., 1895	Rec. VII, 118

Alabama College Station—Continued.

	Volume and page.		Volume and page.
Seventh An. Rpt., 1894.....	Rec. VII, 258	Bul. 89, Jan., 1898.....	Rec. X, 37
Bul. 65, June, 1895.....	Rec. VII, 682	Bul. 90, Jan., 1898.....	Rec. X, 469
Bul. 66, Oct., 1895.....	Rec. VII, 719	Bul. 91, Feb., 1898.....	Rec. X, 431
Bul. 67, Nov., 1895.....	Rec. VII, 893	Bul. 92, Apr., 1898.....	Rec. X, 425
Bul. 68, Jan., 1896.....	Rec. VII, 981	Bul. 93, Apr., 1898.....	Rec. X, 577
Bul. 69, Feb., 1896.....	Rec. VII, 965	Bul. 94, June, 1898.....	Rec. X, 552
Bul. 70, Mar., 1896.....	Rec. VIII, 109	Bul. 95, Aug., 1898.....	Rec. X, 738
Bul. 71, Apr., 1896.....	Rec. VIII, 125	Bul. 96, Aug., 1898.....	Rec. X, 837
Index to Buls. 1-58 (n. s.), July,		Bul. 97, Sept., 1898.....	Rec. X, 892
1888-Aug., 1894.....	Rec. VIII, 537	Bul. 98, Nov., 1898.....	Rec. X, 1041
Bul. 72, July, 1896.....	Rec. VIII, 928	Bul. 99, Dec., 1898.....	Rec. X, 1051
Bul. 73, Oct., 1896.....	Rec. VIII, 886	Tenth An. Rpt. 1897.....	Rec. X, 1097
Bul. 74, Oct., 1896.....	Rec. VIII, 923	Bul. 100, Dec., 1898... Rec. XI, 145, 154	
Bul. 75, Dec., 1896.....	Rec. VIII, 881	Bul. 101, Jan., 1899.....	Rec. XI, 139
Bul. 76, Jan., 1897.....	Rec. IX, 40	Bul. 102, Feb., 1899.....	Rec. XI, 139
Bul. 77, Jan., 1897.....	Rec. IX, 160	Bul. 103, Mar., 1899.....	Rec. XI, 292
Bul. 78, Feb., 1897.....	Rec. IX, 126	Bul. 104, Apr., 1899.....	Rec. XI, 232
Eighth An. Rpt., 1895. Rec. IX, 226, 296		Bul. 105, Aug., 1899.....	Rec. XI, 921
Bul. 79, Mar., 1897.....	Rec. IX, 247	Bul. 106, Nov., 1899.....	Rec. XI, 1041
Bul. 80, Apr., 1897.....	Rec. IX, 227	Index to Vol. VI, Buls. 89-100,	
Bul. 81, May, 1897.....	Rec. IX, 274	Jan.-Dec., 1898.....	Rec. XI, 296
Bul. 82, May, 1897.....	Rec. IX, 272	Eleventh An. Rpt., 1898... Rec. XI, 697	
Bul. 83, June, 1897.....	Rec. IX, 238	Bul. 107, Dec., 1899.....	Rec. XII, 433
Ninth An. Rpt., 1896.....	Rec. IX, 396	Bul. 108, Apr., 1900.. Rec. XII, 551, 569	
Bul. 84, Aug., 1897.....	Rec. IX, 646	Bul. 109, July, 1900.....	Rec. XII, 854
Bul. 85, Aug., 1897.....	Rec. IX, 647	Index to Vol. VII, Buls. 101-107	
Bul. 86, Aug., 1897.....	Rec. IX, 672	and Twelfth An. Rpt., Jan.-	
Bul. 87, Aug., 1897.....	Rec. IX, 743	Dec., 1899.....	Rec. XII, 498
Bul. 88, Dec., 1897.....	Rec. IX, 828	Twelfth An. Rpt., 1899....	Rec. XII, 97

Alabama Tuskegee Station.

Bul. 1, 1898	Rec. X, 1086, 1097
Bul. 2, 1898	Rec. XI, 146
Bul. 3, Nov., 1899	Rec. XII, 331

Arizona Station.

Bul. 1, Dec., 1890	Rec. II, 549	Bul. 12, June, 1894.....	Rec. VI, 431
Bul. 2, Sept., 1891.....	Rec. III, 280	Bul. 13, Mar., 1895.....	Rec. VII, 132
Bul. 3, Oct., 1891.....	Rec. III, 443	Fifth An. Rpt., 1894.....	Rec. VII, 258
Bul. 4, Nov., 1891.....	Rec. III, 444	Bul. 14, June, 1895.....	Rec. VII, 411
Bul. 5, Apr., 1892.....	Rec. III, 846	Bul. 15, June, 1895.....	Rec. VIII, 134
Bul. 6, Apr., 1892.....	Rec. III, 846	Bul. 16, June, 1895.....	Rec. VIII, 129
First and Second An. Rpts., 1890-		Bul. 17, Oct., 1895.....	Rec. VIII, 175
91.....	Rec. III, 846	Bul. 18, Dec., 1895.....	Rec. VIII, 75
Bul. 7, Feb., 1893.....	Rec. IV, 804	Bul. 19, 1896 (Sixth An. Rpt.,	
Bul. 8, Mar., 1893.....	Rec. IV, 935	1895)	Rec. VIII, 352
Bul. 9, Nov., 1893.....	Rec. V, 992	Bul. 20, June, 1896.....	Rec. VIII, 753
Bul. 10, Dec., 1893.....	Rec. V, 1002	Bul. 21, July, 1896.....	Rec. VIII, 771
Bul. 11, Dec., 1893.....	Rec. VI, 85	Bul. 22, Jan., 1897.....	Rec. IX, 142
Third An. Rpt., 1892.....	Rec. VI, 346	Bul. 23, Jan., 1897....	Rec. IX, 121, 134

Arizona Station—Continued.

	Volume and page.		Volume and page.
Bul. 24, Jan., 1897 (Seventh An. Rpt., 1896).....	Rec. IX, 396	Tenth An. Rpt., 1899	Rec. XI, 812, 833, 842, 847, 850, 855, 858, 888, 897
Bul. 25, June, 1897 (Eighth An. Rpt., 1897).....	Rec. IX, 498	Bul. 31, Dec., 1899.....	Rec. XII, 334
Bul. 26, Dec., 1897.....	Rec. IX, 833	Bul. 32, Dec., 1899.....	Rec. XII, 364
Bul. 27, Dec., 1897	Rec. X, 124	Bul. 33, Apr. 13, 1900....	Rec. XII, 458
Bul. 28, Mar., 1898	Rec. X, 420	Bul. 34, June 30, 1900....	Rec. XII, 798
Bul. 29, June, 1898	Rec. X, 851	Bul. 35, Aug. 15, 1900....	Rec. XII, 753
Ninth An. Rpt., 1898	Rec. XI, 213, 239, 240, 253, 295	Eleventh An. Rpt., 1900.	Rec. XII, 1019, 1031, 1038, 1042, 1043, 1049, 1055, 1074, 1097
Bul. 30, Jan., 1899.....	Rec. XI, 236		

Arkansas Station.

First An. Rpt.	Bul. 2, I, 24	Bul. 31, Dec., 1894.....	Rec. VI, 878, 889, 890, 898, 902, 923, 942
Bul. 8, Apr., 1889	Rec. I, 8	Bul. 32, Dec., 1894.....	Rec. VI, 942
Bul. 9, May, 1889	Rec. I, 9	Bul. 33, Jan., 1895.....	Rec. VII, 41
Bul. 10, June, 1889	Rec. I, 9	Bul. 34, Jan., 1895 ...	Rec. VII, 97, 117, 121, 123
Bul. 11, Sept., 1889.....	Rec. II, 88	Bul. 35, Apr., 1895.....	Rec. VII, 249, 251, 252
Bul. 12, Apr., 1890	Rec. II, 197	Bul. 36, May, 1895.....	Rec. VII, 296
Bul. 13, Aug., 1890.....	Rec. II, 198	Bul. 37, Nov., 1895	Rec. VII, 992
Bul. 14, Sept., 1890.....	Rec. III, 98	Bul. 38, Jan., 1896.....	Rec. VIII, 125
Second An. Rpt., 1889	Rec. II, 315	Bul. 39, Jan., 1896.....	Rec. VIII, 133
Bul. 15, Dec., 1890	Rec. II, 318	Eighth An. Rpt., 1895..	Rec. VIII, 382, 401, 402, 407, 408, 417, 427, 428, 442, 443
Third An. Rpt., 1890	Rec. III, 280	Bul. 40, May, 1896..	Rec. VIII, 524, 525
Bul. 16, July, 1891.....	Rec. III, 371	Bul. 41, Aug., 1896	Rec. VIII, 816
Bul. 17, Oct., 1891.....	Rec. III, 685	Bul. 42, Oct., 1896	Rec. VIII, 854, 913, 914
Bul. 18, Feb., 1892.....	Rec. III, 762	Bul. 43, Dec., 1896	Rec. VIII, 889, 899, 909
Fourth An. Rpt., 1891	Rec. III, 762	Bul. 44, Jan., 1897.....	Rec. VIII, 976
Bul. 19, May, 1892.....	Rec. IV, 248	Ninth An. Rpt., 1896	Rec. IX, 323, 349, 396
Fifth An. Rpt., 1892	Rec. IV, 369	Bul. 45, May, 1897.....	Rec. IX, 687
Bul. 20, Nov., 1892	Rec. IV, 749	Bul. 46, July, 1897....	Rec. IX, 630, 634
Bul. 21, Dec., 1892.....	Rec. IV, 828	Bul. 47, Oct., 1897.....	Rec. IX, 740
Bul. 22, Dec., 1892 ...	Rec. IV, 807, 821, 825, 828, 843	Bul. 48, Nov., 1897	Rec. IX, 948
Bul. 23, Mar., 1893	Rec. V, 174	Tenth An. Rpt., 1897	Rec. IX, 928, 933, 938, 949, 950, 990, 998
Bul. 24, July, 1893. Rec. V.	487, 488, 500	Bul. 49, Jan., 1898.....	Rec. X, 48
Bul. 25, Dec., 1893.....	Rec. V, 995	Bul. 50, Jan., 1898.....	Rec. X, 542
Bul. 26, Jan., 1894.....	Rec. V, 1070, 1075, 1076	Bul. 51, May, 1898.....	Rec. X, 595
Sixth An. Rpt., 1893... Rec. VI,	21, 44, 45, 46, 53, 56, 76, 87	Bul. 52, July, 1898	Rec. X, 673
Bul. 27, Mar., 1894... Rec. VI,	196, 212, 215, 217, 240, 252	Bul. 53, Sept., 1898	Rec. X, 943
Bul. 28, June, 1894... Rec. VI,	389, 391, 402, 409, 411, 419, 423, 430	Bul. 54, Dec., 1898... Rec. X,	1085, 1089
Bul. 29, July, 1894.... Rec. VI,	531, 538	Bul. 55, Dec., 1898	Rec. X, 1044
Bul. 30, Sept., 1894	Rec. VI, 663	Bul. 56, Mar., 1899	Rec. XI, 242
Seventh An. Rpt., 1894... Rec. VI,	787, 789, 807, 808, 819, 822, 832, 838, 842, 846, 849		

Arkansas Station—Continued.

	Volume and page.		Volume and page.
Eleventh An. Rpt., 1898....	Rec. XI, 295	Bul. 60, Dec., 1899.....	Rec. XII, 151
Bul. 57, June, 1899.....	Rec. XI, 689	Twelfth An. Rpt., 1899....	Rec. XII, 296
Bul. 58, Aug., 1899....	Rec. XI, 921, 923, 926, 927, 965	Bul. 61, July, 1900.....	Rec. XII, 634
Bul. 59, Dec., 1899.....	Rec. XII, 136	Bul. 62, Nov., 1900.....	Rec. XII, 1034
		Bul. 63, Dec., 1900.....	Rec. XII, 1084

California Station.

Bul. 82, June, 1889.....	Rec. I, 10	An. Rpt., 1895. Rec. VIII, 671, 674, 675, 677, 678, 679, 680, 682, 683, 686, 687, 688, 689, 690, 691, 694, 697, 700, 701, 702, 703, 704, 707, 708, 710, 711, 712, 713, 719, 735
Bul. 83, Nov., 1889.....	Rec. I, 189	Bul. 111, Sept., 1896.... Rec. VIII, 735
Bul. 84, Dec., 1889.....	Rec. I, 190	Bul. 112, Nov., 1896.... Rec. VIII, 782
Bul. 85, Feb., 1890.....	Rec. II, 11	Bul. 113, Nov., 1896. Rec. VIII, 786, 788
Bul. 86, May, 1890.....	Rec. II, 98	Bul. 114, Dec., 1896..... Rec. VIII, 979
Bul. 87, June, 1890.....	Rec. II, 99	Viticultural Rpt., 1887-1893. Rec. VIII, 958, 959, 981, 982, 989, 1003
Bul. 88, Oct., 1890.....	Rec. II, 272	Viticultural Rpt., Appendix, 1896 Rec. VIII, 983
Bul. 89, Dec., 1890.....	Rec. II, 392	Bul. 115, Dec., 1896..... Rec. IX, 157
Bul. 90, Jan., 1891.....	Rec. II, 474	Bul. 116, May, 1897..... Rec. IX, 765
Bul. 91, Feb., 1891.....	Rec. II, 629	Bul. 117, July, 1897..... Rec. IX, 894
Bul. 92, Mar., 1891.....	Rec. II, 629	Bul. 118, Dec., 1897..... Rec. IX, 944
Bul. 93, June, 1891.....	Rec. III, 78	Bul. 119, Dec., 1897..... Rec. IX, 949
Bul. 94, Sept., 1891.....	Rec. III, 371	Bul. 120, Mar., 1898..... Rec. X, 55
Bul. 95, Dec., 1891.....	Rec. III, 444	Rpt., 1896-97..... Rec. X, 220, 222, 223, 224, 225, 228, 229, 235, 244, 245, 246, 250, 253, 254, 255, 258, 262, 267, 274, 276, 285, 297, 298
An. Rpt., 1890.....	Rec. III, 590	Exchange Seed List, Mar., 1898 Rec. X, 361
Bul. 96, Jan., 1892.....	Rec. III, 685	Bul. 121, Aug., 1898..... Rec. X, 617
Bul. 97, May, 1892.....	Rec. IV, 157	Seed Bul., 1898-99..... Rec. X, 963
Bul. 98, Nov., 1892.....	Rec. IV, 557	Bul. 122, Jan., 1899..... Rec. XI, 64
Bul. 99, Dec., 1892.....	Rec. IV, 563	Bul. 123, Jan., 1899..... Rec. XI, 46
Bul. 100, Feb., 1893.....	Rec. IV, 732	Bul. 124, May, 1899..... Rec. XI, 534
Bul. 101, May, 1893.....	Rec. IV, 918	Bul. 125, May, 1899..... Rec. XI, 636
An. Rpt., 1890, Appendix. Rec. IV, 120		Seed Bul., 1899-1900..... Rec. XI, 1047
Rpt. of the Viticultural Work, 1887-1889.....	Rec. V, 190, 214	Bul. 126, 1899..... Rec. XII, 64
Bul. 102, June, 1893....	Rec. V, 286, 301	Bul. 127, 1900..... Rec. XII, 241
An. Rpt., 1891-92....	Rec. V, 562, 563, 567, 569, 571, 575, 576, 577, 578, 581, 582, 586, 587, 588, 589, 590, 592, 593, 594, 596, 603, 606, 607	Bul. 128, Mar., 1900..... Rec. XII, 221
Bul. 103, Dec., 1893.....	Rec. V, 683	Circ., Sept., 1898..... Rec. XII, 350
Bul. 104, Apr., 1894.....	Rec. VI, 141	Bul. 129, May, 1900..... Rec. XII, 643
Bul. 105, Oct., 1894....	Rec. VI, 715, 717	Bul. 130, Aug., 1900..... Rec. XII, 794
Bul. 106, Dec., 1894.....	Rec. VI, 721	An. Rpt., 1898..... Rec. XII, 906, 912, 914, 921, 923, 926, 936, 942, 943, 945, 946, 954, 961, 965, 975, 980, 981, 991, 995, 996
An. Rpt., 1893-94.....	Rec. VI, 775, 788, 790, 791, 792, 793, 794, 798, 806, 807, 808, 809, 812, 814, 815, 816, 817, 818, 819, 820, 821, 822, 829, 830, 831, 832, 838, 849	Exchange Seed List No. 5, Dec., 1900..... Rec. XII, 1014
Bul. 107, May, 1895.....	Rec. VII, 136	
Bul. 108, Aug., 1895.....	Rec. VII, 568	
Bul. 109, Nov., 1895.....	Rec. VII, 766	
Bul. 110, Feb., 1896.....	Rec. VII, 985	

Colorado Station.

	Volume and page.		Volume and page.
First An. Rpt., 1888.....	Bul. 2, I, 27	Seventh An. Rpt., 1894...	Rec. VII, 92, 120, 122, 125, 132, 142, 165
Bul. 6, Jan., 1889.....	Rec. I, 10	Bul. 31, June, 1895.....	Rec. VII, 230
Bul. 7, Apr., 1889.....	Rec. I, 13	Bul. 32, Sept., 1895.....	Rec. VII, 705
Bul. 8, July, 1889.....	Rec. I, 190	Bul. 33, Jan., 1896.....	Rec. VII, 898
Bul. 9, Oct., 1889.....	Rec. I, 191	Eighth An. Rpt., 1895.....	Rec. VIII, 308, 352
Bul. 10, Jan., 1890.....	Rec. II, 11	Bul. 34, May, 1896.....	Rec. VIII, 515
Bul. 11, Apr., 1890.....	Rec. II, 99	Bul. 35, Sept., 1896.....	Rec. VIII, 768
Bul. 12, July, 1890.....	Rec. II, 319	Bul. 36, Mar., 1897.....	Rec. VIII, 975
Second An. Rpt., 1889.....	Rec. II, 392	Bul. 37, Mar., 1897.....	Rec. IX, 229
Bul. 13, Oct., 1890.....	Rec. II, 396	Ninth An. Rpt., 1896.....	Rec. IX, 232, 241, 244, 246, 261, 296
Bul. 14, Jan., 1891.....	Rec. II, 630	Bul. 38, Apr., 1897....	Rec. IX, 261, 291
Bul. 15, Apr., 1891.....	Rec. III, 8	Bul. 39, Sept., 1897.....	Rec. IX, 968
Third An. Rpt., 1890.....	Rec. III, 81	Bul. 40, Oct., 1897....	Rec. IX, 941, 970
Bul. 16, July, 1891.....	Rec. III, 373	Tenth An. Rpt., 1897....	Rec. IX, 1064, 1095, 1098
Bul. 17, Oct., 1891.....	Rec. III, 686	Bul. 41, Feb., 1898.....	Rec. X, 266
Bul. 18, Dec., 1891.....	Rec. III, 686	Bul. 42, Feb., 1898....	Rec. X, 240, 246
Special Bul. A, Jan., 1892..	Rec. III, 686	Bul. 43, Mar., 1898....	Rec. X, 372, 374
Bul. 19, May, 1892.....	Rec. IV, 58	Bul. 44, Mar., 1898.....	Rec. X, 521
Bul. 20, Aug., 1892....	Rec. IV, 259, 267	Bul. 45, May, 1898.....	Rec. X, 597
Fourth An. Rpt., 1891....	Rec. IV, 334, 335, 346, 352, 368, 370	Bul. 46, June, 1898.....	Rec. X, 743
Bul. 21, Oct., 1892....	Rec. IV, 647, 653	Bul. 47, July, 1898.....	Rec. X, 770
Bul. 22, Jan., 1893.....	Rec. IV, 752	Bul. 48, July, 1898.....	Rec. X, 795
Bul. 23, Apr., 1893.....	Rec. V, 306	Bul. 49, Sept., 1898.....	Rec. X, 1018, 1019, 1030
Bul. 24, July, 1893.....	Rec. V, 311	Bul. 50, Dec., 1898.....	Rec. XI, 245
Bul. 25, Oct., 1893.....	Rec. V, 319	Bul. 51, Mar., 1899.....	Rec. XI, 337
Fifth An. Rpt., 1892.....	Rec. V, 870, 871, 898	Bul. 52, Apr., 1899....	Rec. XI, 378, 379
Bul. 26, Feb., 1894.....	Rec. V, 1071, 1072, 1074	Eleventh An. Rpt., 1898..	Rec. XI, 314, 323, 339, 370, 394, 396
Sixth An. Rpt., 1893.....	Rec. VI, 296, 315, 346	Bul. 53, Mar., 1900.....	Rec. XII, 246
Bul. 27, Aug., 1894.....	Rec. VI, 485	Twelfth An. Rpt., 1899..	Rec. XII, 220, 222, 229, 244, 248, 261, 265, 275, 294, 296, 297
Bul. 28, Sept., 1894.....	Rec. VI, 553	Bul. 54, May, 1900.....	Rec. XII, 658
Bul. 29, Nov., 1894.....	Rec. VI, 901		
Bul. 30, Feb., 1895.....	Rec. VI, 981, 982, 984, 987, 1029		

Connecticut State Station.

An. Rpt., 1888.....	Bul. 2, I, 37	An. Rpt., 1889.....	Rec. II, 476
Bul. 96, Jan., 1889.....	Rec. I, 14	Bul. 105, Dec., 1890.....	Rec. II, 490
Bul. 97, Apr., 1889.....	Rec. I, 15	Bul. 106, Mar., 1891.....	Rec. II, 630
Bul. 98, June, 1889.....	Rec. I, 16	Bul. 107, Apr., 1891.....	Rec. II, 711
Bul. 99, June, 1889.....	Rec. I, 17	An. Rpt., 1890.....	Rec. III, 8
Bul. 100, Sept., 1889.....	Rec. I, 191	Bul. 108, May, 1891.....	Rec. III, 143
Bul. 101, Jan., 1890.....	Rec. II, 12	Bul. 109, Aug., 1891.....	Rec. III, 213
Bul. 102, Mar., 1890.....	Rec. II, 12	Bul. 110, Dec., 1891.....	Rec. III, 601
Bul. 103, May, 1890.....	Rec. II, 100	An. Rpt., 1891.....	Rec. III, 763
Bul. 104, Oct., 1890.....	Rec. II, 272	Bul. 111, Mar., 1892.....	Rec. III, 846

Connecticut State Station—Continued.

	Volume and page.		Volume and page.
Bul. 112, June, 1892	Rec. IV, 336	Twentieth An. Rpt., 1896.....	Rec. IX,
Bul. 113, Sept., 1892	Rec. IV, 336	514, 515, 516, 517, 518, 519, 538,	
Bul. 114, Dec., 1892.....	Rec. IV, 643	540, 543, 549, 551, 552, 553, 560,	
Bul. 115, Mar., 1893	Rec. IV, 658	565, 566, 568, 569, 574, 575, 598	
An. Rpt., 1892.....	Rec. IV, 902, 906,	Bul. 124, June, 1897	Rec. IX, 339
907, 910, 911, 912, 922, 923,		Bul. 125, Apr., 1898	Rec. X, 60
928, 933, 934, 944, 945, 949		Twenty-first An. Rpt., 1897...	Rec. X,
Bul. 116, Oct., 1893.....	Rec. V, 486, 487	214, 218, 229, 232, 242, 246,	
Bul. 117, Jan., 1894.....	Rec. V, 689	253, 258, 261, 262, 265, 267,	
Seventeenth An. Rpt., 1893.....	Rec. V,	273, 276, 280, 285, 295, 297	
777, 860, 863, 865, 866, 877, 883, 975,		Bul. 126, May, 1898.....	Rec. X, 374
998, 1079, 1080, 1081; Rec. VI, 110,		Bul. 127, May, 1898.....	Rec. X, 337
130, 134, 136, 140, 148, 153, 163, 169		Bul. 128, Apr., 1899.....	Rec. XI, 279
Bul. 118, Mar., 1894	Rec. V, 1078	Bul. 129, May, 1899.....	Rec. XI, 270
Bul. 119, May, 1894.....	Rec. VI, 247	Twenty-second An. Rpt., 1898.	Rec. XI,
Bul. 120, Apr., 1895..	Rec. VII, 109, 148	705, 719, 722, 730, 742, 745, 748, 750,	
Eighteenth An. Rpt., 1894...	Rec. VII,	754, 755, 757, 762, 769, 777, 799	
182, 191, 195, 198, 207, 208,		Bul. 130, Jan., 1900.....	Rec. XII, 70
218, 229, 231, 233, 254, 256, 258		Twenty-third An. Rpt., 1899..	Rec. XII,
Bul. 121, July, 1895.....	Rec. VII, 314	128, 213, 214, 279, 280, 281, 282,	
Bul. 122, May, 1896.	Rec. VIII, 114, 116	512, 513, 514, 527, 528, 542, 544,	
Nineteenth An. Rpt., 1895..	Rec. VIII,	547, 549, 557, 558, 563, 565, 567,	
368, 369, 371, 373, 387, 388, 389,		568, 570, 571, 580, 581, 599	
391, 392, 393, 395, 398, 402, 405, 406,		Bul. 131, Nov., 1900	Rec. XII, 957
407, 410, 417, 418, 423, 426, 436, 443		Twenty-fourth An. Rpt., 1900, pt. 1, Rec.	
Bul. 123, July, 1896.....	Rec. VIII, 508	XII, 931	

Connecticut Storrs Station.

First An. Rpt., 1888.....	Bul. 2, I, 54	Bul. 14, May, 1895.....	Rec. VII, 145
Bul. 3, Feb., 1889	Rec. I, 18	Seventh An. Rpt., 1894..	Rec. VII, 564,
Bul. 4, July, 1889.....	Rec. I, 192	571, 596, 597, 599, 603, 605,	
Bul. 5, Oct., 1889.....	Rec. I, 194	614, 620, 621, 622, 625, 631	
Bul. 6, Aug., 1890.....	Rec. II, 200	Bul. 15, Oct., 1895.....	Rec. VII, 803
Second An. Rpt., 1889.....	Rec. II, 396	Bul. 16, May, 1896.....	Rec. VIII, 166
Bul. 7, Sept., 1891.....	Rec. III, 213	Eighth An. Rpt., 1895..	Rec. VIII, 381,
Third An. Rpt., 1890.....	Rec. III, 374	419, 422, 426, 427, 429, 430, 432, 441, 443	
Fourth An. Rpt., 1891.....	Rec. IV, 14,	Bul. 17, June, 1896.....	Rec. VIII, 520
16, 27, 28, 29, 59, 75, 76		Ninth An. Rpt., 1896..	Rec. IX, 729, 746,
Bul. 8, Apr., 1892.....	Rec. IV, 76	779, 780, 782, 783, 786, 791, 793, 798	
Bul. 9, Nov., 1892	Rec. IV, 479	Tenth An. Rpt., 1897	Rec. X, 616,
Fifth An. Rpt., 1892	Rec. V, 563,	663, 664, 678, 681, 683, 693, 697	
565, 573, 574, 578, 579,		Bul. 18, Dec., 1897.....	Rec. X, 884
594, 595, 596, 599, 607		Bul. 19, Feb., 1899.....	Rec. XI, 189
Bul. 10, Mar., 1893	Rec. V, 976	Eleventh An. Rpt., 1898..	Rec. XI, 819,
Bul. 11, Apr., 1893.....	Rec. V, 1003	835, 873, 877, 882, 886, 890, 897	
Bul. 12, Feb., 1894.....	Rec. V, 996	Bul. 20, Mar., 1900	Rec. XII, 380
Sixth An. Rpt., 1893.....	Rec. VI, 390,	Bul. 21, Mar., 1900	Rec. XII, 387
398, 402, 405, 443, 444,		Twelfth An. Rpt., 1899.	Rec. XII, 1016,
445, 458, 463, 478, 485		1025, 1028, 1069, 1071, 1075,	
Bul. 13, Oct., 1894.....	Rec. VI, 655	1076, 1077, 1083, 1086, 1097	

Delaware Station.

	Volume and page.		Volume and page.
First An. Rpt., 1888.....	Bul. 2, I, 64	Bul. 28, July, 1895.....	Rec. VII, 766
Bul. 4, May, 1889.....	Rec. I, 22	Bul. 29, Oct., 1895.....	Rec. VII, 785
Bul. 5, June, 1889.....	Rec. I, 22	Bul. 30, Jan., 1896.....	Rec. VIII, 147
Bul. 6, Oct., 1889.....	Rec. I, 195	Seventh An. Rpt., 1895..	Rec. VIII, 476,
Bul. 7, Dec., 1889.....	Rec. I, 196	486, 488, 490, 492, 493, 494, 496.	
Bul. 8, Mar., 1890.....	Rec. II, 46	497, 498, 499, 500, 502, 508, 522,	
Second An. Rpt., 1889.....	Rec. II, 321	523, 524, 525, 527, 531, 537	
Spec. Bul. A, Mar., 1890...	Rec. II, 491	Bul. 31, 1896.....	Rec. VIII, 829
Bul. 9, 1890.....	Rec. III, 602	Bul. 32, 1896.....	Rec. IX, 92
Bul. 10, Oct., 1890.....	Rec. II, 712	Bul. 33, 1896.....	Rec. IX, 73
Bul. 11, Jan., 1891.....	Rec. II, 716	Bul. 34, Jan., 1897.....	Rec. IX, 147
Bul. 12, Mar., 1891.....	Rec. II, 718	Eighth An. Rpt., 1896..	Rec. IX, 425, 441,
Bul. 13, July, 1891.....	Rec. III, 144	446, 455, 457, 458, 463,	
Third An. Rpt., 1890.....	Rec. III, 686	479, 489, 496, 497, 498	
Bul. 14, Dec., 1891.....	Rec. IV, 644	Bul. 35, 1897.....	Rec. IX, 834
Bul. 15, Jan., 1892.....	Rec. IV, 167	Bul. 36, 1897.....	Rec. X, 134
Bul. 16, Mar., 1892.....	Rec. IV, 139	Bul. 37, 1898.....	Rec. X, 396
Bul. 17, June, 1892.....	Rec. IV, 188	Bul. 38, 1898.....	Rec. X, 354
Bul. 18, Sept., 1892.....	Rec. IV, 412	Bul. 39, 1898.....	Rec. X, 345
Bul. 19, Dec., 1892.....	Rec. IV, 835	Bul. 40, 1898.....	Rec. X, 334
Bul. 20, 1893.....	Rec. V, 413	Ninth An. Rpt., 1897..	Rec. X, 514, 515,
Bul. 21, Sept., 1893.....	Rec. V, 410	519, 520, 522, 546, 551,	
Fourth An. Rpt., 1891.....	Rec. V, 562,	556, 562, 571, 596, 599	
566, 575, 577, 585, 591,		Bul. 41, 1898.....	Rec. X, 958
592, 603, 605, 606, 607		Bul. 42, Dec., 1898.....	Rec. X, 962
Fifth An. Rpt., 1892... ..	Rec. V, 775, 776,	Bul. 43, 1899.....	Rec. XI, 141, 185, 189
778, 780, 781, 785, 787,		Bul. 44, Mar., 1899.....	Rec. XI, 141
790, 794, 795, 796, 797		Tenth An. Rpt., 1898.....	Rec. XI,
Bul. 22, Dec., 1893.....	Rec. V, 1077	424, 430, 434, 435, 468,	
Bul. 23, Dec., 1893.....	Rec. VI, 81	473, 485, 490, 493, 496	
Bul. 24, July, 1894.....	Rec. VI, 298	Bul. 45, Oct., 1899.....	Rec. XI, 845
Sixth An. Rpt., 1893..	Rec. VI, 788, 795,	Bul. 46, May, 1900... ..	Rec. XII, 435, 481
802, 810, 811, 816, 827, 830, 832,		Eleventh An. Rpt., 1899.....	Rec. XII,
834 842, 843, 845, 846, 847, 849		721, 724, 729, 739, 753,	
Spec. Bul. B, Apr., 1895...	Rec. VII, 44	761, 771, 775, 787, 797	
Bul. 25, May, 1895.....	Rec. VII, 230	Bul. 47, Sept., 1900.....	Rec. XII, 894
Bul. 26, Mar., 1895.....	Rec. VII, 720	Bul. 48, Oct., 1900.....	Rec. XII, 852
Bul. 27, June, 1895.....	Rec. VII, 761	Bul. 49, Dec., 1900.....	Rec. XII, 970

Florida Station.

Bul. 4 (An. Rpt., 1888)	Bul. 2, I, 64	Bul. 12, Jan., 1891.....	Rec. II, 550
Bul. 5, Apr., 1889.....	Rec. I, 25	Bul. 13, Apr., 1891.....	Rec. III, 145
Bul. 6, July, 1889.....	Rec. I, 197	Bul. 14, July, 1891 (An. Rpt., 1891),	
Bul. 7, Oct., 1889.....	Rec. I, 198	Rec. III, 386	
Bul. 8, Jan., 1890 (An. Rpt., 1889),		Bul. 15, Oct., 1891.....	Rec. III, 510
Rec. II, 13		Bul. 16, Jan., 1892.....	Rec. III, 604
Bul. 9, Apr., 1890.....	Rec. II, 101	Bul. 17, 1892.....	Rec. IV, 346, 354, 360
Bul. 10, July, 1890 (An. Rpt., 1890),		Bul. 18, 1892.....	Rec. IV, 907
Rec. II, 491		Bul. 19, 1892.....	Rec. IV, 912
Bul. 11, Oct., 1890.....	Rec. II, 491	An. Rpt. of Treasurer, 1892..	Rec. V, 509

Florida Station—Continued.

	Volume and page.		Volume and page.
Bul. 20, Sept., 1893	Rec. V, 569	Bul. 38, Jan., 1897	Rec. IX, 45
Bul. 21, Oct., 1893... Rec. V,	786, 790, 792	Bul. 39, July, 1897	Rec. IX, 647
Bul. 22, Nov., 1893	Rec. VI, 286	Bul. 40, July, 1897	Rec. IX, 772
Bul. 23, Dec., 1893	Rec. VI, 559	Bul. 41, Aug., 1897	Rec. IX, 1068
Bul. 24, Jan., 1894 (An. Rpt., 1893),		Bul. 42, Aug., 1897	Rec. X, 367
Rec. VI, 635, 636, 646, 654, 678		Bul. 43, Sept., 1897	Rec. X, 226
Bul. 25, Sept., 1895	Rec. VII, 65	Bul. 44, Jan., 1898	Rec. X, 347
Bul. 26, Oct., 1894	Rec. VII, 64	Bul. 45, Mar., 1898	Rec. X, 658
Bul. 27, Nov., 1894	Rec. VII, 214	Bul. 46, July, 1898	Rec. X, 867
Bul. 28, Dec., 1894... Rec. VII,	251, 252	An. Rpt., 1898	Rec. X, 954,
Bul. 29, Aug., 1895	Rec. VII, 514		962, 971, 972, 999
Bul. 30, Nov., 1895	Rec. VII, 763	Bul. 47, Sept., 1898	Rec. X, 1053
Bul. 31, Dec., 1895	Rec. VIII, 49	Bul. 48, Oct., 1898	Rec. X, 1068
An. Rpt., 1894	Rec. VIII, 92	Bul. 49, Mar., 1899	Rec. XI, 334, 376
Bul. 32, Jan., 1896	Rec. VIII, 125	Bul. 50, May, 1899	Rec. XI, 739
Bul. 33, Feb., 1896	Rec. VIII, 129	Bul. 51, Jan., 1900	Rec. XII, 68
Bul. 34, Mar., 1896	Rec. VIII, 147	Bul. 52, Feb., 1900	Rec. XII, 477
Bul. 35, Apr., 1896	Rec. VIII, 117,	Bul. 53, Mar., 1900	Rec. XII, 463
	124, 128	Bul. 54, Aug., 1900	Rec. XII, 751
An. Rpt., 1895	Rec. VIII, 266	Bul. 55, Sept., 1900	Rec. XII, 778
Bul. 36, Oct., 1896	Rec. VIII, 610	Rpt. for 1899 and 1900... Rec. XII,	1015,
Bul. 37, Nov., 1896	Rec. VIII, 978		1036, 1045, 1056, 1057, 1097
An. Rpt., 1896	Rec. VIII, 1001;		
	Rec. IX, 225, 233, 242, 243,		
	247, 250, 251, 274, 275, 296		

Georgia Station.

First An. Rpt., 1888	Bul. 2, 1, 65	Bul. 20, Feb., 1893	Rec. IV, 808, 813
Bul. 2, Jan., 1889	Rec. I, 26	Fifth An. Rpt., 1892	Rec. IV, 949
Bul. 3, Apr., 1889	Rec. I, 27	Bul. 21, Aug., 1893	Rec. V, 178,
Bul. 4, July, 1889	Rec. I, 198		196, 204, 207
Bul. 5, Oct., 1889	Rec. I, 198	Bul. 22, Oct., 1893	Rec. VI, 400
Bul. 6, Jan., 1890	Rec. II, 13	Sixth An. Rpt., 1893... Rec. VI,	485
Bul. 7, Apr., 1890	Rec. II, 50	Bul. 23, Dec., 1893	Rec. VI, 525, 530
Bul. 8, July, 1890	Rec. II, 324	Bul. 24, Feb., 1894	Rec. VI, 527, 542
Bul. 9, Oct., 1890	Rec. II, 325	Bul. 25, Nov., 1894	Rec. VI, 811
Bul. 10, Dec., 1890	Rec. II, 550	Bul. 26, Dec., 1894	Rec. VI, 891
Third An. Rpt., 1890	Rec. II, 550	Bul. 27, Dec., 1894	Rec. VI, 883, 884, 898
Bul. 11, Jan., 1891	Rec. II, 553	Bul. 28, Sept., 1895	Rec. VII, 767
Bul. 12, Apr., 1891	Rec. III, 15	Bul. 29, Oct., 1895	Rec. VII, 859
Bul. 12½, July, 1891	Rec. III, 146	Seventh An. Rpt., 1894... Rec. VII,	900
Bul. 13, July, 1891	Rec. III, 146	Bul. 30, Nov., 1895	Rec. VII, 943,
Bul. 14, Oct., 1891	Rec. III, 387		946, 954
Bul. 15, Dec., 1891	Rec. III, 604	Eighth An. Rpt., 1895... Rec. VII,	994
Bul. 16, Feb., 1892	Rec. III, 691	Bul. 31, Dec., 1895	Rec. VIII, 41
Bul. 16½, Mar., 1892	Rec. III, 777	Bul. 32, Sept., 1896	Rec. VIII, 785
Fourth An. Rpt., 1891	Rec. III, 691	Bul. 33, Oct., 1896	Rec. VIII, 980
Bul. 17, Mar., 1892	Rec. III, 693	Ninth An. Rpt., 1896... Rec. VIII,	1033
Spec. Bul. 17½, July, 1892 ... Rec. IV,	129	Bul. 34, Nov., 1896	Rec. IX, 124
Bul. 18, Oct., 1892	Rec. IV, 495	Bul. 35, Dec., 1896	Rec. IX, 127
Bul. 19, Dec., 1892	Rec. IV, 648	Tenth An. Rpt., 1897	Rec. IX, 897

Georgia Station—Continued.

	Volume and page.		Volume and page.
Bul. 36, Oct., 1897.....	Rec. X, 160	Bul. 44, Sept., 1899.....	Rec. XI, 841
Bul. 37, Nov., 1897.....	Rec. X, 138	Bul. 45, Oct., 1899.....	Rec. XI, 864
Bul. 38, Dec., 1897.....	Rec. X, 149	Bul. 46, Nov., 1899... Rec. XI, 1018, 1030	
Bul. 39, Dec., 1897.....	Rec. X, 139	Twelfth An. Rpt., 1899... Rec. XII, 50,	
Bul. 40, Sept., 1898.....	Rec. X, 1040	61, 62, 97	
Bul. 41, Oct., 1898.....	Rec. XI, 30, 39	Bul. 47, Dec., 1899.....	Rec. XII, 137
Bul. 42, Nov., 1898. Rec. XI, 147, 167, 173		Bul. 48, Jan., 1900.....	Rec. XII, 148
Bul. 43, Dec., 1898.....	Rec. XI, 138	Bul. 49, Sept., 1900. Rec. XII, 982, 986, 992	
Eleventh An. Rpt., 1898... Rec. XI, 396		Bul. 50, Oct., 1900.....	Rec. XII, 962

Idaho Station.

Bul. 1, Sept., 1892.....	Rec. IV, 754	Bul. 12, 1898.....	Rec. X, 630
Bul. 2, Dec., 1892.....	Rec. IV, 754	Bul. 13, 1898.....	Rec. X, 617
Bul. 3, Mar., 1892.....	Rec. IV, 950	Bul. 14, 1898.....	Rec. X, 760
Bul. 4, July, 1893.....	Rec. V, 386, 402	Bul. 15, July, 1898 (An. Rpt., 1898),	
Bul. 5, Oct., 1893.....	Rec. V, 857	Rec. X, 749, 763, 765, 797	
Bul. 6, Jan., 1894 (An. Rpt., 1893),		Bul. 16, 1899.....	Rec. XI, 173
Rec. V, 898		Bul. 17, 1899.....	Rec. XI, 351
Bul. 7, Apr., 1894.....	Rec. VI, 236	Bul. 18, 1899.....	Rec. XI, 340
Bul. 8, July, 1894.....	Rec. VI, 283	Bul. 19, 1899.....	Rec. XI, 313, 327
An. Rpt., 1894.....	Rec. VII, 258	Bul. 20, 1899.....	Rec. XI, 1059
Bul. 9, Oct., 1894.....	Rec. VII, 463, 486	Bul. 21, Feb., 1900.....	Rec. XII, 156
An. Rpt., 1895.....	Rec. VIII, 352	Bul. 22, 1900.....	Rec. XII, 342
Bul. 10, 1897.....	Rec. IX, 357, 398	Bul. 23, Apr., 1900. Rec. XII, 314, 316, 320	
An. Rpt., 1896.....	Rec. IX, 498	Bul. 24, May, 1900... Rec. XII, 641, 670	
Bul. 11, 1898.....	Rec. X, 559	Bul. 25, Jan., 1901.....	Rec. XII, 1066

Illinois Station.

First An. Rpt., 1888.....	Bul. 2, I, 65	Bul. 24, Feb., 1893.....	Rec. IV, 950
Bul. 4, Feb., 1889.....	Rec. I, 28	Bul. 25, Apr., 1893.....	Rec. IV, 940
Bul. 5, May, 1889.....	Rec. I, 34	Bul. 26, May, 1893.....	Rec. V, 303
Bul. 6, Aug., 1889.....	Rec. I, 199	Bul. 27, Sept., 1893.....	Rec. V, 323
Bul. 7, Nov., 1889.....	Rec. I, 200	Bul. 28, Dec., 1893. Rec. V, 873, 874, 875	
Bul. 8, Feb., 1890.....	Rec. II, 14	Bul. 29, Dec., 1893.... Rec. V, 855, 876	
Bul. 9, May, 1890.....	Rec. II, 201	Fifth An. Rpt., 1892.....	Rec. V, 898
Bul. 10, Aug., 1890.....	Rec. II, 211	Sixth An. Rpt., 1893.....	Rec. V, 898
Bul. 11, Aug., 1890.....	Rec. II, 273	Bul. 30, Mar., 1894.....	Rec. V, 1075
Bul. 12, Nov., 1890.....	Rec. II, 400	Bul. 31, Mar., 1894.. Rec. VI, 29, 31, 35	
Second and Third An. Rpts., 1889—		Bul. 32, Apr., 1894.....	Rec. VI, 83
90.....	Rec. II, 400	Bul. 33, June, 1894. Rec. VI, 234, 248, 250	
Bul. 13, Feb., 1891.....	Rec. II, 556	Bul. 34, Aug., 1894. Rec. VI, 391, 408, 412	
Bul. 14, Feb., 1891.....	Rec. II, 564	Bul. 35, Aug., 1894.....	Rec. VI, 431
Bul. 15, Feb., 1891.....	Rec. II, 632	Bul. 36, Aug., 1894.....	Rec. VI, 663
Bul. 16, May, 1891.....	Rec. III, 149	Bul. 37, Feb., 1895.....	Rec. VI, 980
Bul. 17, Aug., 1891.....	Rec. III, 215	Seventh An. Rpt., 1894....	Rec. VII, 72
Fourth An. Rpt., 1891....	Rec. III, 444	Bul. 38, Mar., 1895.....	Rec. VII, 226
Bul. 18, Nov., 1891.....	Rec. III, 777	Bul. 39, Apr., 1895.....	Rec. VII, 217
Bul. 19, Feb., 1892.....	Rec. III, 779	Bul. 40, Apr., 1895.....	Rec. VII, 202
Bul. 20, Apr., 1892.....	Rec. III, 847	Bul. 41, Mar., 1896. Rec. VII, 932, 946, 951	
Bul. 21, May, 1892. Rec. IV, 134, 157, 166		Bul. 42, Mar., 1896.....	Rec. VII, 944
Bul. 22, Aug., 1892.....	Rec. IV, 822	Eighth An. Rpt., 1895... Rec. VIII, 267	
Bul. 23, Nov., 1892.....	Rec. IV, 814	Bul. 43, Apr., 1896.....	Rec. VIII, 509

Illinois Station—Continued.

	Volume and page.		Volume and page.
Bul. 44, May, 1896.....	Rec. VIII, 501	Bul. 53, July, 1898.....	Rec. X, 844
Bul. 45, July, 1896.....	Rec. VIII, 494	Circ. 13, Dec., 1898.....	Rec. XI, 82
Bul. 46, Jan., 1897.....	Rec. IX, 33, 38, 39, 45, 81	Bul. 54, Mar., 1899.....	Rec. XI, 258
Bul. 47, Mar., 1897.....	Rec. IX, 145	Eleventh An. Rpt., 1898...	Rec. XI, 396
Bul. 48, Apr., 1897.....	Rec. IX, 153	Bul. 55, June, 1899.....	Rec. XI, 633
Ninth An. Rpt., 1896.....	Rec. IX, 396	Bul. 56, July, 1899.....	Rec. XI, 654
Tenth An. Rpt., 1897.....	Rec. IX, 598	Twelfth An. Rpt., 1899....	Rec. XII, 97
Bul. 49, Jan., 1898.....	Rec. X, 142	Bul. 57, Mar., 1900.....	Rec. XII, 355
Bul. 50, Feb., 1898.....	Rec. X, 540	Bul. 58, Apr., 1900.....	Rec. XII, 370
Bul. 51, May, 1898.....	Rec. X, 7 1	Bul. 59, Apr., 1900.....	Rec. XII, 345
Bul. 52, June, 1898.....	Rec. X, 752	Bul. 60, Aug., 1900.....	Rec. XII, 868

Indiana Station.

First An. Rpt., 1888.....	Bul. 2, I, 63	Sixth An. Rpt., 1893.....	Rec. VI, 378, 414, 485
Bul. 18, Jan., 1889.....	Rec. I, 35	Bul. 51, Aug., 1894.....	Rec. VI, 413, 414
Bul. 19, Jan., 1889.....	Rec. I, 36	Bul. 52, Nov., 1894.....	Rec. VI, 640
Bul. 20, Jan., 1889.....	Rec. I, 36	Bul. 53, Dec., 1894.....	Rec. VI, 985, 989, 991, 997, 1003
Bul. 21, Feb., 1889.....	Rec. I, 37	Bul. 54, Feb., 1895.....	Rec. VII, 15
Bul. 22, Mar., 1889.....	Rec. I, 37	Bul. 55, Mar., 1895.....	Rec. VII, 112, 117, 128
Bul. 23, Apr., 1889.....	Rec. I, 37	Bul. 56, Aug., 1895.....	Rec. VII, 393, 408
Bul. 24, May, 1889.....	Rec. I, 40	Seventh An. Rpt., 1894.....	Rec. VII, 764, 812
Bul. 25, June, 1889.....	Rec. I, 41	Bul. 57, Nov., 1895.....	Rec. VIII, 34
Bul. 26, July, 1889.....	Rec. I, 204	Bul. 58, Feb., 1896.....	Rec. VIII, 157
Bul. 27, Aug., 1889.....	Rec. I, 206	Bul. 59, Mar., 1896.....	Rec. VIII, 235
Bul. 28, Sept., 1889.....	Rec. I, 207	Bul. 60, Apr., 1896.....	Rec. VIII, 228
Bul. 29, Dec., 1889.....	Rec. I, 209	Eighth An. Rpt., 1895 ..	Rec. VIII, 299, 302, 304, 305, 306, 307, 316, 321, 335, 352
Bul. 30, Feb., 1890.....	Rec. II, 20	Bul. 61, Aug., 1896.....	Rec. VIII, 489
Bul. 31, Apr., 1890.....	Rec. II, 50	Bul. 62, Oct., 1896.....	Rec. IX, 276
Bul. 32, July, 1890.....	Rec. II, 325	Bul. 63, Dec., 1896.....	Rec. IX, 293
Bul. 33, Oct., 1890.....	Rec. II, 327, 634	Bul. 64, Apr., 1897.....	Rec. IX, 237
Second and Third An. Rpts., 1889- 90.....	Rec. II, 634	Ninth An. Rpt., 1896.....	Rec. IX, 326, 347, 352, 391, 396
Bul. 34, Feb., 1891.....	Rec. II, 635	Bul. 65, June, 1897.....	Rec. IX, 456
Bul. 35, Mar., 1891.....	Rec. II, 637	Bul. 66, Oct., 1897.....	Rec. IX, 1048
Bul. 36, Aug., 1891.....	Rec. III, 510	Bul. 67, Dec., 1897.....	Rec. X, 176
Bul. 37, Dec., 1891.....	Rec. III, 512	Bul. 68, Mar., 1898.....	Rec. X, 143
Bul. 38, Mar., 1892.....	Rec. III, 780	Bul. 69, Mar., 1898.....	Rec. X, 157
Bul. 39, Apr., 1892.....	Rec. III, 851	Tenth An. Rpt., 1897.....	Rec. X, 236, 254, 263, 275, 280, 296, 297
Bul. 40, June, 1892.....	Rec. IV, 154	Bul. 70, May, 1898.....	Rec. X, 693
Bul. 41, Aug., 1892... ..	Rec. IV, 340, 342	Bul. 71, June, 1898.....	Rec. X, 674, 677
Bul. 42, Nov., 1892.....	Rec. IV, 466	Bul. 72, Aug., 1898.....	Rec. X, 843
Fourth An. Rpt., 1891.....	Rec. IV, 665	Bul. 73, Oct., 1898.....	Rec. X, 1042
Fifth An. Rpt., 1892.....	Rec. IV, 665	Bul. 74, Nov., 1898.....	Rec. X, 1043
Bul. 43, Mar., 1893... ..	Rec. IV, 809, 822	Bul. 75, Jan., 1899.....	Rec. XI, 236
Bul. 44, May, 1893.....	Rec. V, 80, 81, 82	Bul. 76, Mar., 1899.....	Rec. XI, 277
Bul. 45, Aug., 1893.....	Rec. V, 185, 186	Bul. 77, Mar., 1899.....	Rec. XI, 335, 340, 356
Bul. 46, Sept., 1893.....	Rec. V, 559, 560	Eleventh An. Rpt., 1898...	Rec. XI, 396
Bul. 47, Nov., 1893.....	Rec. V, 598, 602		
Bul. 48, Jan., 1894.....	Rec. V, 984		
Bul. 49, Mar., 1894.....	Rec. VI, 38		
Bul. 50, Apr., 1894.....	Rec. VI, 134, 138		

Indiana Station—Continued.

	Volume and page.		Volume and page.
Bul. 78, May, 1899.....	Rec. XI, 657	Bul. 81, Dec., 1899	Rec. XII, 126
Bul. 79, June, 1899.....	Rec. XI, 667	Bul. 82, Mar., 1900	Rec. XII, 876
Circ. 1, Sept., 1899	Rec. XI, 898	Bul. 83, Aug., 1900	Rec. XII, 854
Twelfth An. Rpt., 1899...	Rec. XII, 21,	Bul. 84, Sept., 1900.....	Rec. XII, 1040
22, 41, 44, 45, 47, 53, 54, 57,		Bul. 85, Oct., 1900.....	Rec. XII, 1054
70, 78, 80, 94, 95, 96, 97		Bul. 86, Dec., 1900	Rec. XII, 1075
Bul. 80, Sept., 1899	Rec. XII, 189		

Iowa Station.

First An. Rpt., 1888.....	Bul. 2, I, 70	Bul. 28, 1895.....	Rec. VII, 565,
Bul. 4, Feb., 1889.....	Rec. I, 42	576, 582, 588, 589, 599, 607, 626	
Bul. 5, May, 1889.....	Rec. I, 44	Bul. 29, 1895.....	Rec. VII, 804
Bul. 6, Aug., 1889.....	Rec. I, 209	Bul. 30, 1895.....	Rec. VII, 778, 779, 787
Bul. 7, Nov., 1889.....	Rec. I, 211	Bul. 31, 1895.....	Rec. VIII, 133
Bul. 8, Feb., 1890 (An. Rpt.,		Biennial Rpt., 1894-95....	Rec. VIII, 267
1889).....	Rec. II, 52	Bul. 32, 1896	Rec. VIII, 477, 488,
Bul. 9, May, 1890.....	Rec. II, 101	490, 491, 495, 497, 503,	
Bul. 10, Aug., 1890.....	Rec. II, 213	518, 526, 528, 531, 533	
Bul. 11, Nov., 1890 (An. Rpt.,		Bul. 33, 1896 ..	Rec. IX, 67, 75, 82, 84, 91
1890).....	Rec. II, 328	Bul. 34, 1897	Rec. IX, 132,
Bul. 12, Feb., 1891.....	Rec. II, 718	139, 142, 152, 183	
Bul. 13, May, 1891.....	Rec. III, 216	Bul. 35, 1897.....	Rec. IX, 973,
Bul. 14, Aug., 1891.....	Rec. III, 219	975, 987, 993, 994	
Bul. 15, Nov., 1891.....	Rec. III, 782	Bul. 36, 1897	Rec. X, 22, 27,
Bul. 16, Feb., 1892.....	Rec. III, 785	47, 54, 58, 68, 89, 98	
Bul. 17, May, 1892	Rec. IV, 144,	Bul. 37, 1898	Rec. X, 241
169, 173, 181, 186, 187, 188		Biennial Rpt., 1896-97....	Rec. X, 252,
Bul. 18, Aug., 1892.....	Rec. IV, 405,	257, 259, 263, 271, 296, 297	
411, 414, 420, 424, 426		Bul. 38, 1898	Rec. X, 646
Bul. 19, Nov., 1892	Rec. IV, 718,	Bul. 39, 1898	Rec. X, 1048
720, 724, 725, 726, 727, 729,		Bul. 40, 1899	Rec. XI, 388
730, 731, 739, 742, 751, 752		Bul. 41, 1899	Rec. XI, 647
Bul. 20, Feb., 1893	Rec. V, 29,	Bul. 42, 1899	Rec. XI, 651
43, 59, 62, 69, 78		Bul. 43, 1899.....	Rec. XI, 958
Bul. 21, 1893.....	Rec. V, 172,	Biennial Rpt., 1898-99....	Rec. XII, 97
191, 201, 207, 208, 209, 214		Bul. 44, Feb., 1900.....	Rec. XII, 147
Bul. 22, 1893. Rec. V, 982, 985, 1000, 1001		Bul. 45, Feb., 1900.....	Rec. XII, 134
Bul. 23, 1893.....	Rec. V, 975,	Bul. 46, Mar., 1900.....	Rec. XII, 240
977, 979, 982, 989, 992		Bul. 47, Mar., 1900.....	Rec. XII, 340
Bul. 24, 1894.. Rec. VI, 307, 314, 321, 342		Bul. 48, June, 1900... Rec. XII, 671, 673	
Bul. 25, 1894.....	Rec. VI, 391,	Bul. 49, June, 1900... ..	Rec. XII, 664
414, 452, 453, 460, 471, 475, 477		Bul. 50, June, 1900	Rec. XII, 665
Bul. 26, 1894.....	Rec. VI, 551	Bul. 51, Aug., 1900.....	Rec. XII, 639
Bul. 27, 1895.....	Rec. VI, 985,	Bul. 52, Sept., 1900.....	Rec. XII, 881,
991, 997, 998, 1004, 1013, 1029		882, 883	
		Bul. 53, Nov., 1900.....	Rec. XII, 962

Kansas Station.

First An. Rpt., 1888.....	Bul. 2, II, 11	Bul. 9, Dec., 1889.....	Rec. I, 216
Bul. 6, June, 1889.....	Rec. I, 46	Bul. 10, May, 1890	Rec. II, 143
Bul. 7, July, 1889.....	Rec. I, 214	Bul. 11, July, 1890.....	Rec. II, 219
Bul. 8, Oct., 1889.....	Rec. I, 216	Bul. 12, Aug., 1890	Rec. II, 220

Kansas Station—Continued.

	Volume and page.		Volume and page.
Bul. 13, Aug., 1890	Rec. II, 222	Bul. 56, Dec., 1895..	Rec. VIII, 213, 215
Second An. Rpt., 1889.....	Rec. II, 334	Bul. 57, June, 1896	Rec. VIII, 409
Bul. 14, Dec., 1890.....	Rec. II, 565	Bul. 58, June, 1896	Rec. VIII, 522
Bul. 15, Feb., 1891.....	Rec. II, 638	Bul. 59, Aug., 1896.....	Rec. VIII, 594
Bul. 16, Dec., 1890	Rec. II, 721	Bul. 60, Sept., 1896	Rec. VIII, 1006
Bul. 17, Dec., 1890.....	Rec. II, 722	Bul. 61, Nov., 1896	Rec. VIII, 1010
Bul. 18, Dec., 1890.....	Rec. III, 16	Bul. 62, Dec., 1896.....	Rec. IX, 59
Bul. 19, Dec., 1890	Rec. III, 18	Bul. 63, Dec., 1896	Rec. IX, 42
Third An. Rpt., 1890	Rec. III, 152	Bul. 64, Mar., 1897	Rec. IX, 125
Bul. 20, July, 1891	Rec. III, 223	Ninth An. Rpt., 1896.....	Rec. IX, 197
Bul. 21, Aug., 1891	Rec. III, 225	Bul. 65, May, 1897.....	Rec. IX, 750
Bul. 22, Aug., 1891.....	Rec. III, 285	Bul. 66, June, 1897	Rec. IX, 759
Bul. 23, Aug., 1891.....	Rec. III, 287	Bul. 67, June, 1897	Rec. IX, 973
Bul. 24, Sept., 1891.....	Rec. III, 388	Bul. 68, June, 1897	Rec. IX, 928
Bul. 25, Dec., 1891	Rec. III, 696	Bul. 69, June, 1897	Rec. X, 190
Bul. 26, Dec., 1891.....	Rec. III, 697	Bul. 70, July, 1897	Rec. X, 148
Bul. 27, Dec., 1891	Rec. III, 697	Bul. 71, July, 1897	Rec. X, 142
Bul. 28, Dec., 1891	Rec. III, 788	Tenth An. Rpt., 1897.....	Rec. X, 196
Bul. 29, Dec., 1891	Rec. III, 789	Bul. 72, July, 1897.....	Rec. X, 382
Bul. 30, Dec., 1891	Rec. III, 855	Bul. 73, July, 1897.....	Rec. X, 351
Bul. 31, Dec., 1891	Rec. III, 858	Bul. 74, July, 1897.....	Rec. X, 343
Bul. 32, Dec., 1891. Rec. IV, 133, 154, 175		Bul. 75, Aug., 1897	Rec. X, 319
Fourth An. Rpt., 1891.....	Rec. IV, 197	Bul. 76, Feb., 1898	Rec. X, 359
Bul. 33, Aug., 1892	Rec. IV, 406	Bul. 77, Mar., 1898	Rec. X, 369
Bul. 34, Sept., 1892.....	Rec. IV, 475	Bul. 78, Apr., 1898	Rec. X, 346
Bul. 35, Dec., 1892....	Rec. IV, 748, 749	Bul. 79, Apr., 1898	Rec. X, 395
Bul. 36, Dec., 1892....	Rec. IV, 721, 722	Bul. 80, June, 1898	Rec. X, 646
Bul. 37, Dec., 1892.....	Rec. V, 491	Bul. 81, Sept., 1898.....	Rec. X, 891
Bul. 38, Mar., 1893	Rec. V, 497	Bul. 82, Jan., 1899.....	Rec. XI, 171
Fifth An. Rpt., 1892.....	Rec. V, 509	Bul. 83, Apr., 1899.....	Rec. XI, 236
Bul. 39, Aug., 1893	Rec. V, 599	Bul. 84, Apr., 1899.....	Rec. XI, 349
Bul. 40, Aug., 1893	Rec. V, 582	Bul. 85, Apr., 1899....	Rec. XI, 333, 377
Bul. 41, Dec., 1893.....	Rec. V, 881	Bul. 86, June, 1899	Rec. XI, 498
Bul. 42, Dec., 1893.....	Rec. V, 1072	Bul. 87, Apr., 1899.....	Rec. XI, 420
Bul. 43, Dec., 1893.....	Rec. VI, 37, 38	Bul. 88, May, 1899.....	Rec. XI, 487
Bul. 44, Dec., 1893.....	Rec. VI, 55	Bul. 89, June, 1899	Rec. XI, 432
Bul. 45, Dec., 1893.....	Rec. VI, 32	Eleventh An. Rpt., 1898 ..	Rec. XI, 897
Bul. 46, May, 1894.....	Rec. VI, 224	Bul. 90, Jan., 1900.....	Rec. XI, 1037
Sixth An. Rpt., 1893..	Rec. VI, 281, 346	Bul. 91, Feb., 1900.....	Rec. XII, 190
Bul. 47, Aug., 1894 ...	Rec. VI, 538, 571	Bul. 92, Mar., 1900	Rec. XII, 142
Bul. 48, Dec., 1894....	Rec. VII, 27, 29	Twelfth An. Rpt., 1899....	Rec. XII, 197
Bul. 49, May, 1895....	Rec. VII, 251, 252	Bul. 93, Mar., 1900	Rec. XII, 332
Seventh An. Rpt., 1894....	Rec. VII, 340	Bul. 94, Apr., 1900....	Rec. XII, 334, 399
Bul. 50, June, 1895	Rec. VII, 407	Bul. 95, Apr., 1900	Rec. XII, 375
Bul. 51, June, 1895	Rec. VII, 600	Bul. 96, May, 1900.....	Rec. XII, 333
Bul. 52, Sept., 1895	Rec. VII, 589	Bul. 97, May, 1900.....	Rec. XII, 472
Bul. 53, Oct., 1895	Rec. VII, 799	Bul. 98, May, 1900.....	Rec. XII, 466
Bul. 54, Dec., 1895.....	Rec. VIII, 43	Thirteenth An. Rpt., 1900.	Rec. XII, 897
Bul. 55, Dec., 1895.....	Rec. VIII, 130	Bul. 99, Oct., 1900.....	Rec. XII, 898
Eighth An. Rpt., 1895....	Rec. VIII, 175	First An. Rpt., 1888	Bul. 2, II, 37

Kentucky Station.

	Volume and page.		Volume and page.
Bul. 17, Feb., 1889	Rec. I, 61	Bul. 54, Mar., 1895	Rec. VII, 212
Bul. 18, Apr., 1889	Rec. I, 62	Bul. 55, Apr., 1895	Rec. VII, 201
Bul. 19, May, 1889	Rec. I, 63	Bul. 56, Aug., 1895	Rec. VII, 491
Bul. 20, July, 1889	Rec. I, 218	Bul. 57, Sept., 1895 ..	Rec. VII, 758, 763
Bul. 21, Sept., 1889	Rec. I, 218	Seventh An. Rpt., 1894...	Rec. VII, 835,
Bul. 22, Dec., 1889	Rec. I, 219	842, 854, 862, 868, 869, 877,	
Bul. 23, Feb., 1890	Rec. II, 21	878, 880, 881, 882, 883, 900	
Bul. 24, Mar., 1890	Rec. II, 22	Bul. 58, Nov., 1895	Rec. VIII, 66
Bul. 25, Apr., 1890	Rec. II, 22	Bul. 59, Dec., 1895	Rec. VIII, 61
Bul. 26, Apr., 1890	Rec. II, 143	Bul. 60, Dec., 1895	Rec. VIII, 40
Bul. 27, Apr., 1890	Rec. II, 145	Bul. 61, Mar., 1896 ..	Rec. VIII, 121, 136
Bul. 28, May, 1890	Rec. II, 225	Bul. 62, Mar., 1896	Rec. VIII, 231
Bul. 29, July, 1890	Rec. II, 227	Bul. 63, May, 1896 ..	Rec. VIII, 302, 319
Bul. 30, Aug., 1890	Rec. II, 227	Bul. 64, July, 1896	Rec. VIII, 300
Bul. 31, Dec., 1890	Rec. II, 405	Eighth An. Rpt., 1895...	Rec. VIII, 377,
Bul. 32, Mar., 1891	Rec. II, 641	381, 391, 401, 402, 408,	
Bul. 33, Apr., 1891	Rec. II, 724	412, 417, 418, 441, 443	
Bul. 34, Aug., 1891	Rec. III, 227	Bul. 65, Dec., 1896	Rec. VIII, 970
Bul. 35, Sept., 1891	Rec. III, 227	Bul. 66, Feb., 1897	Rec. VIII, 991,
Bul. 36, Dec., 1891	Rec. III, 791	997, 998	
Bul. 37, Dec., 1891	Rec. III, 791	Bul. 67, May, 1897	Rec. IX, 261
Bul. 38, Mar., 1892	Rec. III, 791	Bul. 68, May, 1897	Rec. IX, 338
Bul. 39, Mar., 1892	Rec. III, 792	Bul. 69, Sept., 1897	Rec. IX, 639
Bul. 40, Mar., 1892	Rec. III, 792	Ninth An. Rpt., 1896....	Rec. IX, 1024,
Second An. Rpt., 1889	Rec. III, 859	1033, 1044, 1048, 1054, 1062, 1072, 1098	
Bul. 41, July, 1892	Rec. IV, 248	Bul. 70, Dec., 1897	Rec. X, 359, 393
Bul. 42, Sept., 1892	Rec. IV, 342	Bul. 71, Dec., 1897	Rec. X, 337
Bul. 43, Dec., 1892	Rec. IV, 643	Bul. 72, Feb., 1898 ..	Rec. X, 344, 363, 382
Bul. 44, Jan., 1893	Rec. IV, 659	Bul. 73, Feb., 1898	Rec. X, 355
Bul. 45, Apr., 1893	Rec. IV, 716	Bul. 74, May, 1898	Rec. X, 372, 393
Bul. 46, Aug., 1893	Rec. V, 290	Bul. 75, June, 1898	Rec. X, 336
Bul. 47, Dec., 1893	Rec. V, 876, 884	Bul. 76, Aug., 1898	Rec. X, 734
Bul. 48, Jan., 1894	Rec. V, 861	Bul. 77, Sept., 1898	Rec. X, 842, 864
Bul. 49, Mar., 1894	Rec. V, 1079	Bul. 78, Nov., 1898	Rec. X, 958
Bul. 50, Apr., 1894	Rec. VI, 51	Bul. 79, Dec., 1898	Rec. XI, 137
Third An. Rpt., 1890 ..	Rec. VI, 202, 215,	Bul. 80, Mar., 1899	Rec. XI, 169
216, 221, 229, 233, 235, 252		Bul. 81, Mar., 1899	Rec. XI, 260, 261
Fourth An. Rpt., 1891	Rec. VI, 269,	Tenth An. Rpt., 1897	Rec. XI, 314,
274, 287, 288, 294, 295,		323, 396	
296, 299, 300, 337, 347		Bul. 82, July, 1899	Rec. XI, 627
Fifth An. Rpt., 1892	Rec. VI, 274,	Bul. 83, Aug., 1899	Rec. XI, 731
283, 287, 288, 295, 296,		Bul. 84, Nov., 1899	Rec. XII, 157
299, 300, 315, 337, 347		Bul. 85, Dec., 1899	Rec. XII, 130
Sixth An. Rpt., 1893 ..	Rec. VI, 272, 287,	Eleventh An. Rpt., 1898..	Rec. XII, 516,
294, 296, 311, 314,		521, 526, 530, 547, 593, 599	
315, 316, 317, 347		Bul. 86, Jan., 1900	Rec. XII, 585
Bul. 51, Aug., 1894	Rec. VI, 401	Bul. 87, May, 1900	Rec. XII, 547
Bul. 52, Dec., 1894	Rec. VI, 980	Bul. 88, Aug., 1900	Rec. XII, 1026
Bul. 53, Dec., 1894	Rec. VI, 1006	Bul. 89, Sept., 1900	Rec. XII, 1035

Louisiana Stations.

	Volume and page.		Volume and page.
First An. Rpt., 1888.....	Bul. 2, I, 71	Bul. 28 (2. ser.), 1894.....	Rec. VI, 206, 215, 216, 217, 235, 243, 245
Bul. 20, Jan., 1889.....	Rec. I, 63	Bul. 29 (2. ser.), 1894.....	Rec. VI, 512, 524, 529, 542, 543, 574, 582
Bul. 21, Jan., 1889.....	Rec. I, 69	Bul. 30 (2. ser.), 1894.....	Rec. VI, 544
Bul. 22, Jan., 1889.....	Rec. I, 70	Bul. 31 (2. ser.), 1894.....	Rec. VI, 710
Bul. 23, 1889.....	Rec. I, 73	Bul. 32 (2. ser.), 1895.....	Rec. VI, 805
Bul. 24.....	Rec. I, 220	Bul. 33 (2. ser.).....	Rec. VII, 29
Bul. 25.....	Rec. I, 221	Seventh An. Rpt., 1894....	Rec. VII, 258
Bul. 26, 1889.....	Rec. II, 146	Bul. 34 (2. ser.).....	Rec. VII, 413
Bul. 27, 1889.....	Rec. II, 147	Bul. 35 (2. ser.).....	Rec. VII, 372, 383, 384, 397, 398, 432
Bul. 28.....	Rec. II, 150	Bul. 36 (2. ser.).....	Rec. VII, 405
Bul. 1 (2. ser.).....	Rec. II, 275	Bul. 37 (2. ser.).....	Rec. VII, 492
Bul. 2 (2. ser.).....	Rec. II, 275	Bul. 38 (2. ser.).....	Rec. VII, 645, 646, 647, 677, 678, 718
Third. An. Rpt., 1890.....	Rec. II, 492	Bul. 39 (2. ser.).....	Rec. VII, 854, 882
Bul. 3 (2. ser.).....	Rec. II, 566	Bul. 40 (2. ser.).....	Rec. VIII, 42
Bul. 4 (2. ser.).....	Rec. II, 566	Eighth An. Rpt., 1895....	Rec. VIII, 92
Bul. 5 (2. ser.).....	Rec. II, 568	Bul. 41 (2. ser.).....	Rec. VIII, 220
Bul. 6 (2. ser.).....	Rec. II, 569	Spec. Rpt., Geology and Agricul- ture, pt. 3.....	382
Bul. 7 (2. ser.).....	Rec. II, 571	Bul. 42 (2. ser.).....	Rec. VIII, 407
Bul. 8 (2. ser.).....	Rec. II, 642	Bul. 43 (2. ser.).....	Rec. VIII, 625
Bul. 9 (2. ser.).....	Rec. II, 644	Bul. 44 (2. ser.).....	Rec. VIII, 625
Bul. 10 (2. ser.).....	Rec. III, 152	Bul. 45 (2. ser.).....	Rec. VIII, 767, 808
Bul. 11 (2. ser.).....	Rec. III, 389	Bul. 46 (2. ser.).....	Rec. VIII, 956
Bul. 12 (2. ser.).....	Rec. III, 444	Ninth An. Rpt., 1896.....	Rec. IX, 197
Bul. 13 (2. ser.).....	Rec. III, 698	Bul. 47 (2. ser.), 1897.....	Rec. IX, 439
Fourth An. Rpt., 1891....	Rec. III, 860	Bul. 48 (2. ser.), 1897....	Rec. IX, 1065
Bul. 14 (2. ser.).....	Rec. III, 861	Bul. 49 (2. ser.), 1897....	Rec. IX, 1044, 1072
Bul. 15 (2. ser.).....	Rec. IV, 75	Bul. 50 (2. ser.).....	Rec. X, 38
Bul. 16 (2. ser.).....	Rec. IV, 133, 137, 138, 140, 145, 197	Spec. Rpt., Geology and Agricul- ture, pt. 4.....	Rec. X, 330
Spec. Rpt., Geology and Agricul- ture, pt. 1.....	Rec. IV, 244	Bul. 51 (2. ser.), 1898.....	Rec. X, 389
Bul. 17 (2. ser.).....	Rec. IV, 339, 340, 346, 352, 359, 369	Bul. 52 (2. ser.), 1898.....	Rec. X, 547
Bul. 18 (2. ser.).....	Rec. IV, 643, 661	Tenth An. Rpt., 1897.....	Rec. X, 96
Bul. 19 (2. ser.).....	Rec. IV, 645	Bul. 53 (2. ser.), 1898.....	Rec. XI, 28
Bul. 20 (2. ser.), Jan., 1893.	Rec. IV, 723	Bul. 54 (2. ser.), 1898....	Rec. XI, 39, 67
Bul. 21 (2. ser.), Feb., 1893.	Rec. IV, 709, 715, 717, 718, 722, 725, 726, 728, 748	Bul. 55 (2. ser.), 1899.....	Rec. XI, 230
Bul. 22 (2. ser.).....	Rec. V, 159, 161, 172, 176, 179, 187, 189, 203, 205, 215	Eleventh An. Rpt., 1898....	Rec. XI, 295
Spec. Rpt., Geology and Agricul- ture, pt. 2.....	Rec. V, 282	Bul. 56 (2. ser.), 1899.....	Rec. XI, 588
Spec. Bul., The Orange and Other Citrus Fruits.....	Rec. V, 396, 409	Bul. 57 (2. ser.), 1899.....	Rec. XII, 186
Fifth An. Rpt., 1892.....	Rec. V, 415	Bul. 58 (2. ser.), 1899....	Rec. XII, 130, 168
Bul. 23 (2. ser.).....	Rec. V, 861, 884	Spec. Rpt., Geology and Agricul- ture, pt. 5.....	Rec. XII, 221
Sixth An. Rpt., 1893.....	Rec. V, 899	Twelfth An. Rpt., 1899....	Rec. XII, 398
Bul. 24 (2. ser.), Feb., 1894.	Rec. V, 979	Bul. 59 (2. ser.), Feb., 1900.	Rec. XII, 438
Bul. 25 (2. ser.), 1894.....	Rec. VI, 41	Bul. 60 (2. ser.), 1900....	Rec. XII, 787
Bul. 26 (2. ser.), 1894.....	Rec. VI, 39	Bul. 61 (2. ser.), 1900....	Rec. XII, 741, 760
Bul. 27 (2. ser.), 1894.....	Rec. VI, 142	Bul. 62 (2. ser.), 1900....	Rec. XII, 834, 841, 878

Maine Station.

	Volume and page.		Volume and page.
An. Rpt., 1888.....	Bul. 2, II, 41	Bul. 32, Jan., 1897.....	Rec. IX, 113
Bul. 1 (2. ser.), May, 1889....	Rec. I, 73	Bul. 33, Mar., 1897.....	Rec. IX, 436
Bul. 2 (2. ser.).....	Rec. I, 73	Bul. 34, Apr., 1897.....	Rec. IX, 436
An. Rpt., 1889.....	Rec. II, 644	Bul. 35, May, 1897.....	Rec. IX, 673
An. Rpt., 1890.....	Rec. II, 345; Rec. III, 19, 391	Bul. 36, Aug., 1897.....	Rec. IX, 653
Bul. 3 (2. ser.), 1891.....	Rec. III, 397	Bul. 37, Aug., 1897.....	Rec. IX, 682
An. Rpt., 1891....	Rec. IV, 119, 129, 132, 145, 334, 354, 359, 370, 546, 554, 561, 566, 568, 569, 570, 571, 574, 575, 577	Bul. 38, Oct., 1897.....	Rec. IX, 739
An. Rpt., 1892.	Rec. IV, 544, 546, 567, 904; Rec. V, 29, 33, 60, 63, 216	Twelfth An. Rpt., 1896....	Rec. IX, 816, 830, 834, 840, 845, 846, 852, 858, 860, 866, 873, 881, 887, 888, 891, 897, 899
Bul. 4 (2. ser.).....	Rec. IV, 921, 926	Bul. 39, Nov., 1897.....	Rec. IX, 983
Bul. 5 (2. ser.).....	Rec. V, 999	Bul. 40, Dec., 1897.....	Rec. IX, 950
Bul. 6 (2. ser.).....	Rec. V, 985	Bul. 41, Jan., 1898.....	Rec. X, 395
Bul. 7 (2. ser.), Feb., 1894..	Rec. V, 1070	Bul. 42, Feb., 1898.....	Rec. X, 355
Bul. 8 (2. ser.), Mar., 1894..	Rec. V, 1077	Bul. 43, Mar., 1898.....	Rec. X, 337
Bul. 9 (2. ser.), Mar., 1894....	Rec. VI, 51	Bul. 44, May, 1898.....	Rec. X, 381
Bul. 10 (2. ser.), Apr., 1894....	Rec. VI, 51	Bul. 45, Oct., 1898.....	Rec. X, 734
Bul. 11 (2. ser.), Apr., 1894....	Rec. VI, 34	Thirteenth An. Rpt., 1897.....	Rec. X, 824, 826, 835, 871, 879, 885, 892, 894, 896, 898
Bul. 12 (2. ser.), May, 1894..	Rec. VI, 632	Bul. 46, Nov., 1898.....	Rec. X, 855
Bul. 13 (2. ser.), June, 1894..	Rec. VI, 666	Bul. 47, Dec., 1898.....	Rec. X, 1089
Bul. 14 (2. ser.), Sept., 1894..	Rec. VI, 630	Bul. 48, Jan., 1899.....	Rec. X, 1089
An. Rpt., 1893.....	Rec. VI, 691, 709, 716, 725, 732, 734, 740, 743, 744, 746, 747, 750, 753, 755	Bul. 49, Feb., 1899.....	Rec. XI, 153
Bul. 15 (2. ser.), Oct., 1894.	Rec. VI, 847	Bul. 50, Mar., 1899.....	Rec. XI, 137
Bul. 16 (2. ser.), Nov., 1894.	Rec. VII, 111	Bul. 51, Apr., 1899.....	Rec. XI, 279
Bul. 17 (2. ser.), Mar., 1895.	Rec. VII, 121	Bul. 52, May, 1899.....	Rec. XI, 262
Bul. 18 (2. ser.), Mar., 1895.	Rec. VII, 111	Bul. 53, Sept., 1899.....	Rec. XI, 829
Bul. 19 (2. ser.), Mar., 1895.	Rec. VII, 111	Fourteenth An. Rpt., 1898..	Rec. XI, 908, 909, 912, 913, 917, 928, 929, 931, 942, 956, 958, 959, 960, 964, 965, 969, 971, 974, 975, 983, 987, 998
Bul. 20 (2. ser.), Mar., 1895.	Rec. VII, 884	Bul. 54, Oct., 1899.....	Rec. XII, 78
Bul. 21 (2. ser.), Apr., 1895.	Rec. VII, 886	Bul. 55, Nov., 1899.....	Rec. XII, 69
An. Rpt., 1894.....	Rec. VII, 835, 852, 853, 854, 856, 860, 862, 863, 866, 867, 868, 872, 875, 876, 879, 884, 887, 893, 898, 900	Bul. 56, Dec., 1899.....	Rec. XII, 68
Bul. 22 (2. ser.), 1895....	Rec. VII, 940	Bul. 57, Dec., 1899.....	Rec. XII, 140
Bul. 23 (2. ser.), Feb., 1896.	Rec. VII, 992	Fifteenth An. Rpt., 1899..	Rec. XII, 297
Bul. 24 (2. ser.), Mar., 1896.	Rec. VIII, 48	Bul. 58, Dec., 1899.....	Rec. XII, 399
Bul. 25 (2. ser.), Mar., 1896.	Rec. VIII, 40	Bul. 59, Feb., 1900.....	Rec. XII, 377
Bul. 26, Mar., 1896.....	Rec. VIII, 172	Bul. 60, Mar., 1900.....	Rec. XII, 324
Bul. 27, Mar., 1896.....	Rec. VIII, 231	Bul. 61, Mar., 1900... Rec. XII, 312, 367	
Bul. 28, Mar., 1896.....	Rec. VIII, 237	Bul. 62, Apr., 1900.....	Rec. XII, 599
Bul. 29, Apr., 1896.....	Rec. VIII, 240	Bul. 63, Apr., 1900.....	Rec. XII, 587
An. Rpt., 1895.....	Rec. VIII, 748, 757, 767, 773, 778, 780, 782, 783, 790, 792, 800, 805, 811, 821, 825, 836	Bul. 64, June, 1900....	Rec. XII, 585, 586
Bul. 30, Oct., 1896.....	Rec. VIII, 970	Bul. 65, June, 1900.....	Rec. XII, 516, 565, 586, 587
Bul. 31, Nov., 1896.....	Rec. IX, 184	Bul. 66, Aug., 1900.....	Rec. XII, 737
		Bul. 67, Sept., 1900.....	Rec. XII, 873
		Bul. 68, Oct., 1900.....	Rec. XII, 863

Maryland Station.

	Volume and page.		Volume and page.
First An. Rpt., 1888.....	Bul. 2, II, 69	Seventh An. Rpt., 1894....	Rec. VII, 72, 96, 129, 147, 165
Bul. 4, Mar., 1889.....	Rec. I, 74	Bul. 33, Apr., 1895....	Rec. VII, 114, 128
Bul. 5, June, 1889.....	Rec. I, 75	Bul. 34, July, 1895.....	Rec. VII, 294
Spec. Bul. (Fairedition), 1889.	Rec. I, 222	Bul. 35, Sept., 1895.....	Rec. VII, 295, 297, 298
Bul. 6, Sept., 1889.....	Rec. II, 228	Bul. 36, Dec., 1895.....	Rec. VII, 977
Spec. Bul., July, 1890.....	Rec. II, 276	Bul. 37, Feb., 1896.....	Rec. VIII, 212
Spec. Bul., Oct., 1890.....	Rec. II, 277	Bul. 38, 1896.....	Rec. VIII, 216
Second An. Rpt., 1889.....	Rec. II, 345	Eighth An. Rpt., 1895.	Rec. VIII, 382, 443
Bul. 8, Mar., 1890.....	Rec. III, 607	Bul. 39, Apr., 1896.....	Rec. VIII, 412
Bul. 9, June, 1890.....	Rec. II, 726	Bul. 40, Aug., 1896.....	Rec. VIII, 391
Bul. 10, Sept., 1890.....	Rec. II, 726	Ninth An. Rpt., 1896.	Rec. VIII, 964, 1003
Bul. 11, Dec., 1890.....	Rec. II, 728	Bul. 41, Sept., 1896....	Rec. VIII, 1004
Third An. Rpt., 1890.....	Rec. III, 513	Bul. 42, Oct., 1896..	Rec. VIII, 702, 704
Bul. 12, Mar., 1891.....	Rec. III, 608	Bul. 43, Dec., 1896.....	Rec. IX, 76
Spec. Bul. D, Feb., 1891....	Rec. IV, 405	Bul. 44, Dec., 1896.....	Rec. IX, 31
Spec. Bul. E, Aug., 1891....	Rec. IV, 405	Bul. 45, Feb., 1897.....	Rec. IX, 36
Spec. Bul. F, Jan., 1892....	Rec. III, 863	Bul. 46, Mar., 1897.....	Rec. IX, 39
Spec. Bul. G, Feb., 1892....	Rec. III, 864	Bul. 47, June, 1897.....	Rec. IX, 290
Fourth An. Rpt., 1891.....	Rec. IV, 16, 17, 27, 36, 42, 69, 75, 76	Bul. 48, June, 1897.....	Rec. IX, 469
Bul. 13, June, 1891.....	Rec. IV, 728	Tenth An. Rpt., 1897.....	Rec. IX, 498
Bul. 14, Sept., 1891.....	Rec. IV, 35	Bul. 49, Aug., 1897.....	Rec. IX, 39
Bul. 15, Dec., 1891.....	Rec. IV, 44	Bul. 50, Sept., 1897.....	Rec. IX, 957
Bul. 16, Mar., 1892.....	Rec. IV, 253	Bul. 51, Dec., 1897.....	Rec. X, 75
Spec. Bul. H, July, 1892....	Rec. IV, 275	Bul. 52, Feb., 1898.....	Rec. X, 136
Spec. Bul. I, Aug., 1892....	Rec. IV, 405	Bul. 53, Mar., 1898.....	Rec. X, 394
Bul. 17, June, 1892....	Rec. IV, 721, 728	Bul. 54, Mar., 1898.....	Rec. X, 350
Bul. 18, Oct., 1892.....	Rec. IV, 726	Bul. 55, May, 1898....	Rec. X, 660, 662
Bul. 19, Dec., 1892.....	Rec. IV, 827	Bul. 56, June, 1898.....	Rec. X, 633
Bul. 20, Mar., 1893.....	Rec. V, 66	Bul. 57, Aug., 1898.....	Rec. X, 868
Bul. 21, June, 1893.....	Rec. V, 162	Bul. 58, Aug., 1898....	Rec. X, 864, 872
Spec. Bul. K, June, 1893....	Rec. V, 164	Bul. 59, Jan., 1899.....	Rec. XI, 62
Fifth An. Rpt., 1892.....	Rec. V, 509	Bul. 60, Mar., 1899.....	Rec. XI, 260
Bul. 22, Sept., 1893.....	Rec. V, 601	Eleventh An. Rpt., 1898..	Rec. XI, 295
Bul. 23, Dec., 1893.....	Rec. V, 685	Bul. 61, June, 1899.....	Rec. XI, 441
Bul. 24, Feb., 1894.....	Rec. V, 861	Bul. 62, June, 1899.....	Rec. XI, 440
Sixth An. Rpt., 1893.....	Rec. V, 899	Twelfth An. Rpt., 1899.	Rec. XI, 820, 897
Bul. 25, Mar., 1894.....	Rec. V, 978, 982	Bul. 63, Dec., 1899.....	Rec. XII, 174
Bul. 26, June, 1894.....	Rec. VI, 209	Bul. 64, Jan., 1900.....	Rec. XII, 182
Bul. 27, Aug., 1894.....	Rec. VI, 287	Bul. 65, Mar., 1900..	Rec. XII, 572, 581
Bul. 28, Sept., 1894.....	Rec. VI, 539	Bul. 66, May, 1900.....	Rec. XII, 624
Bul. 29 and Appendix, Dec., 1894,	Rec. VI, 880, 882	Bul. 67, June, 1900.....	Rec. XII, 637
Bul. 30, Jan., 1895.....	Rec. VI, 980	Thirteenth An. Rpt., 1900,	Rec. XII, 834, 897
Bul. 31, Mar., 1895.....	Rec. VI, 983	Bul. 68, Sept., 1900.....	Rec. XII, 930
Bul. 32, Apr., 1895.....	Rec. VII, 42	Bul. 69, Oct., 1900.....	Rec. XII, 1078

Massachusetts State Station.

Sixth An. Rpt., 1888.....	Bul. 2, I, 73	Circ., May, 1889.....	Rec. I, 80
Bul. 32, Feb., 1889.....	Rec. I, 77	Bul. 34, June, 1889.....	Rec. I, 80
Bul. 33, Mar., 1889.....	Rec. I, 79	Bul. 35, Nov., 1889.....	Rec. I, 222
Circ., Apr., 1889.....	Rec. I, 80	Bul. 36, Mar., 1890.....	Rec. II, 56

Massachusetts State Station—Continued.

	Volume and page.		Volume and page.
Circ., May, 1890.....	Rec. II, 154	Bul. 47, May, 1893....	Rec. V, 30, 66, 74
Circ., June, 1890.....	Rec. II, 154	Bul. 48, June, 1893..	Rec. V, 162, 164, 195
Bul. 37, July, 1890.....	Rec. II, 231	Bul. 49, Aug., 1893..	Rec. V, 162, 164, 195
Bul. 38, Sept., 1890.....	Rec. II, 277	Tenth An. Rpt., 1892.....	Rec. V, 162,
Circ., Aug., 1890.....	Rec. II, 278		164, 170, 190, 191, 194, 195,
Circ., Nov., 1890.....	Rec. II, 353		197, 198, 199, 206, 207, 209
Seventh An. Rpt., 1889....	Rec. II, 572	Bul. 50, Oct., 1893..	Rec. V, 482, 486, 499
Bul. 39, Apr., 1891.....	Rec. II, 654	Bul. 51, Mar., 1894....	Rec. V, 976, 992
Circ., Mar., 1891.....	Rec. II, 654	Bul. 52, June, 1894..	Rec. VI, 117, 134, 163
Circ., Apr., 1891.....	Rec. II, 730	Bul. 53, July, 1894....	Rec. VI, 196, 202
Eighth An. Rpt., 1890....	Rec. III, 152	Bul. 54, Aug., 1894...	Rec. VI, 282, 287
Bul. 40, July, 1891.....	Rec. III, 162	Eleventh An. Rpt., 1893..	Rec. VI, 282,
Bul. 41, Sept., 1891.....	Rec. III, 287		283, 287, 288, 290, 291, 293
Circ., Mar., 1892.....	Rec. III, 864		294, 295, 296, 297, 317, 318, 322,
Ninth An. Rpt., 1891.....	Rec. IV, 16,		326, 328, 329, 330, 331, 332, 343
	26, 27, 38, 44, 47, 50, 64, 67, 75, 76	Twelfth An. Rpt., 1894..	Rec. VII, 285,
Bul. 42, June, 1892.....	Rec. IV, 176		290, 291, 292, 294, 295, 297, 298,
Bul. 43, Aug., 1892..	Rec. IV, 335, 337, 356		299, 302, 303, 306, 316, 318, 320, 321,
Circ., May, 1891.....	Rec. IV, 406		322, 323, 331, 335, 336, 337, 338, 340
Bul. 44, Oct., 1892....	Rec. IV, 463, 478	Bul. 55, Oct., 1894....	Rec. VI, 513, 522
Bul. 45, Nov., 1892.....	Rec. IV, 661	Bul. 56, Nov., 1894....	Rec. VI, 621, 631
Bul. 46, Mar., 1893.....	Rec. IV, 944	Bul. 57, Mar., 1895..	Rec. VI, 976, 980, 1023

Massachusetts Hatch Station.

An. Rpt., 1888.....	Bul. 2, I, 91	Met. Bul. 28, Apr., 1891....	Rec. II, 730
Bul. 3, Jan., 1889.....	Rec. I, 82	Bul. 13, Apr., 1891.....	Rec. III, 23
Bul. 4, Apr., 1889.....	Rec. I, 82	Met. Bul. 29, May, 1891....	Rec. III, 24
Bul. 5, July, 1889.....	Rec. I, 224	Met. Bul. 30, June, 1891....	Rec. III, 86
Bul. 6, Oct., 1889.....	Rec. I, 225	Bul. 14, May, 1891.....	Rec. III, 164
Met. Buls. 1-12, Jan.-Dec., 1889,	Rec. I, 225	Met. Bul. 31, July, 1891...	Rec. III, 165
	Rec. I, 225	Met. Buls. 32, 33, Aug.-Sept., 1891,	Rec. III, 228
Spec. Bul., Nov., 1889.....	Rec. I, 225	Bul. 15, Oct., 1891.....	Rec. III, 289
Bul. 7, Jan., 1890.....	Rec. II, 22	Met. Buls. 34, 35, Oct.-Nov., 1891,	Rec. III, 397
Bul. 8, Apr., 1890.....	Rec. II, 104	Bul. 16, Jan., 1892.....	Rec. III, 517
Spec. Bul., May, 1890.....	Rec. II, 107	Met. Bul. 36, Dec., 1891...	Rec. III, 520
Bul. 9, May, 1890.....	Rec. II, 233	Met. Bul. 37, Jan., 1892...	Rec. III, 609
Bul. 10, Oct., 1890.....	Rec. II, 235	Fourth An. Rpt., 1891....	Rec. III, 699
Met. Buls. 13-15, Jan.-Mar., 1890,	Rec. II, 25	Met. Bul. 38, Feb., 1892...	Rec. III, 700
	Rec. II, 25	Met. Bul. 39, Mar., 1892..	Rec. III, 794
Met. Buls. 16-21, Apr.-Sept., 1890,	Rec. II, 236	Bul. 17, Apr., 1892.....	Rec. III, 864
	Rec. II, 236	Bul. 18, Apr., 1892.....	Rec. III, 866
Met. Bul. 22, Oct., 1890....	Rec. II, 278	Bul. 19, May, 1892.....	Rec. III, 869
Met. Bul. 23, Nov., 1890...	Rec. II, 353	Met. Bul. 40, Apr., 1892...	Rec. III, 871
Met. Bul. 24, Dec., 1890....	Rec. II, 410	Met. Bul. 41, May, 1892....	Rec. IV, 16
Bul. 11, Jan., 1891.....	Rec. II, 406	Met. Bul. 42, June, 1892...	Rec. IV, 119
Bul. 12, Apr., 1891.....	Rec. II, 654	Met. Buls. 43, 44, July-Aug., 1892,	Rec. IV, 242
Met. Bul. 25, Jan., 1891....	Rec. II, 492		Rec. IV, 242
Met. Bul. 26, Feb., 1891....	Rec. II, 582	Met. Bul. 45, Sept., 1892..	Rec. IV, 405
Third An. Rpt., 1890.....	Rec. II, 582		
Met. Bul. 27, Mar., 1891 ...	Rec. II, 654		

Massachusetts Hatch Station—Continued.

	Volume and page.		Volume and page.
Met. Bul. 46, Oct., 1892....	Rec. IV, 463	Met. Buls. 85-87, Jan.-Mar., 1896,	
Met. Buls. 47, 48, Nov.-Dec., 1892,		Rec. VII, 932	
	Rec. IV, 544	Bul. 36, Feb., 1896.....	Rec. VIII, 146
Met. Buls. 49-52, Jan.-Apr., 1893,		Bul. 37, Mar., 1896 .	Rec. VIII, 134, 140
	Rec. IV, 709	Bul. 38, Mar., 1896.....	Rec. VIII, 114, 117, 148
Bul. 20, Jan., 1893.....	Rec. IV, 661	Bul. 39, Apr., 1896.....	Rec. VIII, 440
Bul. 21, Apr., 1893.....	Rec. IV, 903	Bul. 40, July, 1896.....	Rec. VIII, 392
Met. Buls. 53-56, May-Aug., 1893,		Bul. 41, Aug., 1896.....	Rec. VIII, 624
	Rec. V, 162	Bul. 42, Oct., 1896.....	Rec. VIII, 767
Fifth An. Rpt., 1892.....	Rec. V, 280,	Met. Buls. 88, 89, Apr.-May, 1896,	
291, 302, 309, 310, 317, 324		Rec. VIII, 110	
Met. Buls. 57-59, Sept.-Nov., 1893,		Met. Buls. 90, 91, June-July, 1896,	
	Rec. V, 483	Rec. VIII, 207	
Met. Bul. 60, Dec., 1893....	Rec. V, 676	Met. Buls. 92, 93, Aug.-Sept., 1896,	
Bul. 22, Oct., 1893.....	Rec. V, 681	Rec. VIII, 293	
Bul. 23, Dec., 1893.....	Rec. V, 783	Eighth An. Rpt., 1895	Rec. VIII,
Spec. Bul. Jan., 1894.....	Rec. V, 860	381, 385, 392, 393, 397, 399, 402,	
Bul. 24, Apr., 1894	Rec. VI, 64, 65	406, 409, 418, 421, 423, 424, 426,	
Bul. 25, Apr., 1894.....	Rec. VI, 55, 61	427, 428, 429, 432, 437, 442, 443	
Bul. 26, Oct., 1894	Rec. VI, 626, 636	Met. Buls. 94-96, Oct.-Dec., 1896,	
Met. Buls. 61-66, Jan.-June, 1894,		Rec. VIII, 962	
	Rec. VI, 117	Met. Buls. 97-99, Jan.-Mar., 1897,	
Met. Buls. 67-69, July-Sept., 1894,		Rec. VIII, 964	
	Rec. VI, 391	Bul. 43, Jan., 1897.....	Rec. IX, 53
Met. Bul. 70, Oct., 1894....	Rec. VI, 513	Bul. 44, Mar., 1897.....	Rec. IX,
Met. Bul. 72, Dec., 1894....	Rec. VI, 700	48, 49, 54, 75	
Met. Buls. 73-75, Jan.-Mar., 1895,		Ninth An. Rpt., 1896. Rec. IX, 322, 324,	
	Rec. VI, 976	329, 332, 337, 338, 339, 348, 357, 360,	
Bul. 27, Dec., 1894	Rec. VII, 66	371, 372, 373, 374, 376, 377, 380, 396	
Sixth An. Rpt., 1893....	Rec. VII, 121,	Bul. 45, Mar., 1897.	Rec. IX, 339
130, 146, 150, 165		Bul. 46, Apr., 1897	Rec. IX, 330
Bul. 28, Apr., 1895.....	Rec. VII, 141	Bul. 47, Apr., 1897	Rec. IX, 345
Bul. 29, May, 1895.....	Rec. VII, 140	Bul. 48, July, 1897.....	Rec. IX, 436
Seventh An. Rpt., 1894....	Rec. VII, 258	Spec. Bul. July, 1897.....	Rec. IX, 460
Bul. 30, June, 1895	Rec. VII, 294	Bul. 49, Nov., 1897	Rec. IX, 939
Bul. 31, July, 1895.....	Rec. VII, 294	Met. Buls. 100-102, Apr.-June, 1897,	
Bul. 32, Aug., 1895.....	Rec. VII, 294	Rec. IX, 332	
Index, 1888-1895, June, 1895,		Met. Buls. 103-108, July-Dec., 1897,	
	Rec. VII, 432	Rec. IX, 729	
Bul. 33, Oct., 1895.....	Rec. VII, 708	Bul. 50, Jan., 1898.....	Rec. X, 472, 484
Bul. 34, Oct., 1895.....	Rec. VII, 670	Bul. 51, Feb., 1898	Rec. X, 428
Bul. 35, Dec., 1895.....	Rec. VII, 939	Bul. 52, Mar., 1898	Rec. X, 436, 457
Met. Bul. 76, Apr., 1895....	Rec. VII, 98	Bul. 53, Apr., 1898	Rec. X, 474
Met. Bul. 77, May, 1895....	Rec. VII, 189	Bul. 54, July, 1898	Rec. X, 428
Met. Buls. 78-80, June-Aug., 1895,		Tenth An. Rpt., 1897	Rec. X, 607,
	Rec. VII, 287	617, 622, 623, 624, 626, 636,	
Met. Buls. 81, 82, Sept.-Oct., 1895,		639, 647, 661, 675, 679, 697	
	Rec. VII, 475	Bul. 55, Nov., 1898.....	Rec. X, 1055
Met. Buls. 83, 84, Nov.-Dec., 1895,		Bul. 56, Nov., 1898	Rec. X, 1077
	Rec. VII, 843		

Massachusetts Hatch Station—Continued.

	Volume and page.		Volume and page.
Bul. 57, Nov., 1898	Rec. X, 1033	Met. Buls. 127-129, July-Sept., 1899,	
Met. Buls. 109-111 Jan.-Mar., 1898,			Rec. XI, 432
	Rec. X, 26	Met. Buls. 130-132, Oct.-Dec., 1899,	
Met. Buls. 112-114, Apr.-June, 1898,			Rec. XI, 715
	Rec. X, 328	Twelfth An. Rpt., 1899... Rec. XII, 220,	
Met. Buls. 115-117, July-Sept., 1898,		226, 253, 257, 271, 279, 281, 297	
	Rec. X, 419	Bul. 64, Feb., 1900..... Rec. XII, 281	
Met. Buls. 118-120, Oct.-Dec., 1898,		Bul. 65, Mar., 1900..... Rec. XII, 225	
	Rec. X, 826	Bul. 66, Mar., 1900..... Rec. XII, 344	
Buls. 58-59, Mar., 1899 Rec. XI, 137		Bul. 67, May, 1900..... Rec. XII, 468	
Bul. 60, Apr., 1899..... Rec. XI, 174		Bul. 68, July, 1900..... Rec. XII, 626	
Bul. 61, Apr., 1899..... Rec. XI, 159		Bul. 69, Sept., 1900..... Rec. XII, 856	
Eleventh An. Rpt., 1898. Rec. XI, 508,		Bul. 70, Nov., 1900..... Rec. XII, 933	
509, 516, 525, 526, 527, 528, 529, 542,		Met. Buls. 133-135, Jan.-Mar., 1900,	
543, 551, 561, 566, 568, 572, 576, 577, 599			Rec. XII, 28
Bul. 62, July, 1899..... Rec. XI, 528		Met. Buls. 136-138, Apr.-June, 1900,	
Spec. Bul., Aug. 10, 1899... Rec. XI, 563			Rec. XII, 316
Bul. 63, Nov., 1899..... Rec. XI, 1026		Met. Buls. 139-141, July-Sept., 1900,	
Met. Buls. 121-123, Jan.-Mar., 1899,			Rec. XII, 619
	Rec. XI, 128	Met. Buls. 142-144, Oct.-Dec., 1900,	
Met. Buls. 124-126, Apr.-June, 1899,			Rec. XII, 918
	Rec. XI, 222		

Michigan Station.

First An. Rpt., 1888.....	Bul. 2, I, 94	Bul. 69, Nov., 1890.....	Rec. II, 360
Bul. 43, Jan., 1889.....	Rec. I, 84	Second An. Rpt., 1889	Rec. II, 492
Bul. 44, Jan., 1889.....	Rec. I, 84	Bul. 70, Jan., 1891.....	Rec. II, 582
Bul. 45, Mar., 1889.....	Rec. I, 86	Bul. 71, Feb., 1891.....	Rec. II, 655
Bul. 46, Mar., 1889.....	Rec. I, 86	Bul. 72, Feb., 1891.....	Rec. II, 655
Bul. 47, Apr., 1889.....	Rec. I, 87	Bul. 73, Apr., 1891.....	Rec. II, 730
Bul. 48, Apr., 1889.....	Rec. I, 89	Bul. 74, May, 1891.....	Rec. II, 731
Bul. 49, May, 1889.....	Rec. I, 90	Bul. 75, July, 1891.....	Rec. III, 290
Bul. 50, June, 1889.....	Rec. I, 91	Bul. 76, Oct., 1891.....	Rec. III, 290
Bul. 51, July, 1889.....	Rec. I, 226	Bul. 77, Nov., 1891.....	Rec. III, 398
Bul. 52, July, 1889.....	Rec. I, 226	Bul. 78, Dec., 1891.....	Rec. III, 521
Bul. 53, Aug., 1889.....	Rec. I, 227	Bul. 79, Jan., 1892.....	Rec. III, 609
Bul. 54, Oct., 1889.....	Rec. I, 228	Bul. 80, Jan., 1892.....	Rec. III, 700
Bul. 55, Dec., 1889.....	Rec. I, 228	Bul. 81, Mar., 1892.....	Rec. III, 794
Bul. 56, Feb., 1890.....	Rec. II, 25	Bul. 82, Mar., 1892.....	Rec. III, 794
Bul. 57, Mar., 1890.....	Rec. II, 58	Bul. 83, Apr., 1892.....	Rec. III, 871
Bul. 58, Mar., 1890.....	Rec. II, 63	Bul. 84, Apr., 1892.....	Rec. III, 872
Bul. 59, Apr., 1890.....	Rec. II, 63	Bul. 85, Apr., 1892.....	Rec. III, 872
Bul. 60, Apr., 1890.....	Rec. II, 107	Bul. 86, July, 1892.....	Rec. IV, 248
Bul. 61, Apr., 1890.....	Rec. II, 110	Bul. 87, Sept., 1892.....	Rec. IV, 352
Bul. 62, May, 1890.....	Rec. II, 110	An. Rpts., 1890-91. Rec. IV, 405, 416, 428	
Bul. 63, July, 1890.....	Rec. II, 236	Bul. 88, Dec., 1892.....	Rec. IV, 555
Bul. 64, July, 1890.....	Rec. II, 237	Bul. 89, Dec., 1892.....	Rec. IV, 574
Bul. 65, Aug., 1890.....	Rec. II, 279	Bul. 90, Feb., 1893....	Rec. IV, 817, 827
Bul. 66, Sept., 1890.....	Rec. II, 279	Bul. 91, Feb., 1893....	Rec. IV, 814, 821
Bul. 67, Oct., 1890.....	Rec. II, 353	Bul. 92, Mar., 1893.....	Rec. IV, 917
Bul. 68, Oct., 1890.....	Rec. II, 356	Bul. 93, Apr., 1893	Rec. V, 180, 181

Michigan Station—Continued.

	Volume and page.		Volume and page.
Bul. 94, Apr., 1893	Rec. V, 161	Bul. 133, June, 1896	Rec. VIII, 625
Bul. 95, Apr., 1893	Rec. V, 183	Bul. 134, June, 1896	Rec. VIII, 630
Bul. 96, July, 1893	Rec. V, 160	Bul. 135, July, 1896.....	Rec. VIII, 584
Bul. 97, July, 1893	Rec. V, 290	Eighth An. Rpt., 1895..	Rec. VIII, 866,
Bul. 98, July, 1893	Rec. V, 311	870, 882, 883, 885, 889, 900,	
Bul. 99, July, 1893	Rec. V, 286	905, 919, 924, 930, 931, 937	
An. Rpt., 1892.....	Rec. V, 676,	Bul. 136, Nov., 1896 ...	Rec. VIII, 1008
677, 678, 680, 681, 683, 685, 686, 688, 891		Bul. 137, Nov., 1896 ...	Rec. VIII, 1007
Bul. 100, Aug., 1893	Rec. V, 681	Bul. 138, Nov., 1896 ...	Rec. VIII, 1011
Bul. 101, Dec., 1893. Rec. V, 782, 793, 794		Bul. 139, Dec., 1896.....	Rec. IX, 121
Bul. 102, Dec., 1893....	Rec. V, 788, 791	Bul. 140, Dec., 1896.....	Rec. IX, 183
Bul. 103, Feb., 1894.....	Rec. VI, 54	Bul. 141, Feb., 1897.....	Rec. IX, 131
Bul. 104, Feb., 1894.....	Rec. VI, 55	Bul. 142, Mar., 1897	Rec. IX, 354
Bul. 105, Feb., 1894.....	Rec. VI, 52	Bul. 143, Apr., 1897.....	Rec. IX, 353
Bul. 106, Feb., 1894.....	Rec. VI, 53	Bul. 144, Apr., 1897.....	Rec. IX, 350
Bul. 107, Feb., 1894.....	Rec. VI, 239	Bul. 145, June, 1897	Rec. IX, 938
Bul. 108, Feb., 1894. Rec. VI, 208, 227, 228		Bul. 146, July, 1897.....	Rec. IX, 990
Bul. 109, Feb., 1894	Rec. VI, 218	Bul. 147, July, 1897.....	Rec. IX, 986
Bul. 110, Feb., 1894	Rec. VI, 242	Bul. 148, Sept., 1897	Rec. IX, 1053
Bul. 111, July, 1894	Rec. VI, 299	Bul. 149, Nov., 1897	Rec. IX, 1081
Bul. 112, June, 1894	Rec. VI, 401	Bul. 150, Dec., 1897	Rec. IX, 1045
Bul. 113, Oct., 1894	Rec. VI, 660	Bul. 151, Feb., 1898.....	Rec. X, 48
Bul. 114, Oct., 1894	Rec. VI, 632	Bul. 152, Feb., 1898.....	Rec. X, 49
Bul. 115, Oct., 1894	Rec. VI, 623	Bul. 153, Feb., 1898.....	Rec. X, 47
Bul. 116, Oct., 1894	Rec. VI, 648	Ninth An. Rpt., 1896	Rec. X, 116,
Bul. 117, Dec., 1894.....	Rec. VI, 713	121, 124, 130, 136, 146, 147, 148,	
Bul. 118, Jan., 1895.....	Rec. VII, 214	151, 152, 153, 157, 168, 169, 180,	
Spec. Spraying Bul., Mar., 1895,		182, 184, 188, 189, 193, 195, 196	
Rec. VII, 231		Bul. 154, Mar., 1898	Rec. X, 136
Bul. 119, Feb., 1895	Rec. VII, 297	Bul. 155, Mar., 1898	Rec. X, 470
Bul. 120, Feb., 1895	Rec. VII, 302	Bul. 156, Mar., 1898	Rec. X, 470
Bul. 121, Apr., 1895	Rec. VII, 310	Bul. 157, May, 1898.....	Rec. X, 596
Bul. 122, Apr., 1895	Rec. VII, 306	Bul. 158, May, 1898.....	Rec. X, 580
Bul. 123, Apr., 1895	Rec. VII, 305	Bul. 159, June, 1898	Rec. X, 692
Bul. 124, Apr., 1895	Rec. VII, 303	Bul. 160, June, 1898	Rec. X, 766
Bul. 125, June, 1895.....	Rec. VII, 374,	Bul. 161, July, 1898.....	Rec. X, 734
382, 383, 395, 396		Bul. 162, Nov., 1898.....	Rec. X, 1020,
Bul. 126, June, 1895	Rec. VII, 380	1045, 1046	
Sixth An. Rpt., 1893	Rec. VII, 463,	Bul. 163, Nov., 1898	Rec. X, 1043
471, 473, 487, 491, 497,		Spec. Bul. 2, Nov., 1896	Rec. X, 168
498, 504, 505, 517, 531		Spec. Bul. 3, Oct., 1896..	Rec. X, 797
Bul. 127, Sept., 1895	Rec. VII, 885	Spec. Bul. 4, Nov., 1896. Rec. X, 151, 169	
Bul. 128, Sept., 1895	Rec. VII, 887	Spec. Bul. 5, Dec., 1896	Rec. X, 125
Seventh An. Rpt., 1894..	Rec. VII, 932,	Spec. Bul. 6, Dec., 1896	Rec. X, 196
954, 955, 959, 960, 961, 964,		Spec. Bul. 7, Jan., 1897	Rec. X, 771
965, 967, 969, 985, 986, 994		Spec. Bul. 8, Mar., 1897.....	Rec. X, 246
Bul. 129, Feb., 1896.....	Rec. VIII, 134	Tenth An. Rpt., 1897.....	Rec. XI, 30,
Bul. 130, Feb., 1896.....	Rec. VIII, 134	43, 50, 53, 54, 57, 58, 60, 61, 64, 86, 98	
Bul. 131, Apr., 1896..	Rec. VIII, 216, 225	Bul. 164, Dec., 1898.....	Rec. XI, 40
Bul. 132, Apr., 1896.....	Rec. VIII, 241	Bul. 165, Dec., 1898.....	Rec. XI, 96

Michigan Station—Continued.

	Volume and page.		Volume and page.
Bul. 166, Jan., 1899.....	Rec. XI, 188	Eleventh An. Rpt., 1898..	Rec. XI, 1018, 1037, 1047, 1059, 1062, 1085, 1095
Bul. 167, Jan., 1899.....	Rec. XI, 186	Twelfth An. Rpt., 1899..	Rec. XII, 121, 143, 197
Bul. 168, Feb., 1899.....	Rec. XI, 153	Bul. 177, Dec., 1899.....	Rec. XII, 236
Bul. 169, Feb., 1899.....	Rec. XI, 252	Bul. 178, Jan., 1900.....	Rec. XII, 275
Bul. 170, Mar., 1899.....	Rec. XI, 250	Spec. Bul. 13, Dec., 1899...	Rec. XII, 293
Bul. 171, Mar., 1899.....	Rec. XI, 252	Bul. 179, Feb., 1900.....	Rec. XII, 540
Bul. 172, Mar., 1899.....	Rec. XI, 390	Bul. 180, Mar., 1900.....	Rec. XII, 575
Bul. 173, Mar., 1899.....	Rec. XI, 386	Bul. 181, Apr., 1900.....	Rec. XII, 620, 623, 631, 636, 639
Bul. 174, June, 1899.....	Rec. XI, 528	Bul. 182, May, 1900.....	Rec. XII, 986
Bul. 175, July, 1899.....	Rec. XI, 954	Bul. 183, June, 1900.....	Rec. XII, 984
Bul. 176, Oct., 1899.....	Rec. XI, 931	Bul. 184, June, 1900.....	Rec. XII, 987
Spec. Bul. 9, Nov., 1898...	Rec. XI, 698	Bul. 185, June, 1900.....	Rec. XII, 933
Spec. Bul. 10, Feb., 1899..	Rec. XI, 842		
Spec. Bul. 11, Mar., 1899....	Rec. XI, 252		
Spec. Bul. 12, Mar., 1899....	Rec. XI, 274		

Minnesota Station.

An. Rpt., 1888.....	Bul. 2, II, 74	Bul. 34, Sept., 1894....	Rec. VI, 522, 553
Bul. 5, Jan., 1889.....	Rec. I, 91	An. Rpt., 1893.....	Rec. VI, 689, 691, 703, 706, 722, 723, 729, 738, 742, 749, 752, 753, 754, 755
Bul. 6, Feb., 1889.....	Rec. I, 94	Bul. 35, Oct., 1894.....	Rec. VI, 918, 923, 925, 928, 939, 941
Bul. 7, Apr., 1889.....	Rec. I, 95	Bul. 36, Nov., 1894..	Rec. VI, 1008, 1009
Bul. 8, July, 1889.....	Rec. I, 229	Bul. 37, Dec., 1894.....	Rec. VI, 1003
Bul. 9, Nov., 1889.....	Rec. I, 232	Bul. 38, Dec., 1894.....	Rec. VII, 35
Bul. 10, Mar., 1890.....	Rec. II, 63	Bul. 39, Dec., 1894.....	Rec. VII, 122, 131, 136, 137
Bul. 11, June, 1890.....	Rec. II, 154	Bul. 40, Dec., 1894.....	Rec. VII, 113, 116, 118, 119, 121, 140, 149
Bul. 12, July, 1890.....	Rec. II, 237	An. Rpt., 1894..	Rec. VII, 396, 397, 398, 404, 405, 407, 410, 413, 425, 429, 432
Bul. 13, Dec., 1890.....	Rec. II, 496	Bul. 41, Aug., 1895..	Rec. VII, 476, 477, 484
Bul. 14, Jan., 1891.....	Rec. II, 497	Bul. 42, Dec., 1895.....	Rec. VII, 974
Bul. 15, Feb., 1891.....	Rec. II, 655	Bul. 43, Dec., 1895.....	Rec. VIII, 144
Biennial Rpt., 1889-90.....	Rec. III, 24	Bul. 44, Dec., 1895..	Rec. VIII, 246, 251
Bul. 16, Apr., 1891.....	Rec. III, 228	Bul. 45, Dec., 1895.....	Rec. VIII, 219, 225, 239, 240
Bul. 17, Aug., 1891.....	Rec. III, 228	Bul. 46, Dec., 1895.....	Rec. VIII, 207, 222, 223, 231, 234, 237
Bul. 18, Sept., 1891.....	Rec. III, 229	An. Rpt., 1895..	Rec. VIII, 476, 482, 490, 491, 492, 496, 498, 499, 500, 507, 520, 521, 537
Bul. 19, Mar., 1892.....	Rec. III, 795	Bul. 47, July, 1896.....	Rec. VIII, 575, 586, 615
Bul. 20, May, 1892....	Rec. IV, 132, 140	Bul. 48, Dec., 1896.....	Rec. IX, 149
Bul. 21, June, 1892...	Rec. IV, 142, 144	Bul. 49, Dec., 1896.....	Rec. IX, 141
Bul. 22, Aug., 1892...	Rec. IV, 421, 423	Bul. 50, Dec., 1896.....	Rec. IX, 131
Bul. 23, Sept., 1892..	Rec. IV, 408, 410, 417	Bul. 51, Dec., 1896.....	Rec. IX, 185
Bul. 24, Oct., 1892....	Rec. IV, 653, 654		
Bul. 25, Dec., 1892.....	Rec. IV, 651		
Bul. 26, Jan., 1893.....	Rec. IV, 733		
Bul. 27, Feb., 1893..	Rec. IV, 723, 733, 750		
Bul. 28, Mar., 1893.....	Rec. IV, 932		
Biennial Rpt., 1891-92.....	Rec. V, 324		
Bul. 29, Dec., 1893.....	Rec. V, 867		
Bul. 30, Dec., 1893.....	Rec. V, 857		
Bul. 31, Dec., 1893..	Rec. V, 1073, 1083		
Bul. 32, Dec., 1893..	Rec. VI, 21, 46, 55, 57		
Bul. 33, July, 1894.....	Rec. VI, 301		

Minnesota Station—Continued.

	Volume and page.		Volume and page.
Bul. 52, Dec., 1896.....	Rec. IX, 128	Bul. 62, Mar., 1899	Rec. XI, 638
An. Rpt., 1896.....	Rec. IX, 426, 435, 445, 446, 452, 470, 496, 498	Bul. 63, July, 1899	Rec. XI, 812, 831, 843, 872, 883
Bul. 53, June, 1897 ...	Rec. IX, 632, 641	Bul. 64, Oct., 1899....	Rec. XI, 861, 864
Bul. 54, Sept., 1897	Rec. IX, 777	Bul. 65, Nov., 1899	Rec. XI, 1018
Bul. 55, Dec., 1897.....	Rec. X, 466	An. Rpt., 1898.....	Rec. XI, 323, 396
Bul. 56, Apr., 1898	Rec. X, 543	Bul. 66, Dec., 1899.....	Rec. XII, 166
Bul. 57, June, 1898	Rec. X, 575	An. Rpt., 1899.....	Rec. XII, 425, 496
Bul. 58, June, 1898	Rec. X, 671	Bul. 67, Apr., 1900...	Rec. XII, 479, 484
Bul. 59, July, 1898.....	Rec. XI, 179	Bul. 68, June, 1900	Rec. XII, 627
Bul. 60, July, 1898.....	Rec. XI, 175	Class Bul. 8, Dec. 19, 1900.	Rec. XII, 1039
Bul. 61, Dec., 1898.....	Rec. XI, 170	An. Rpt., 1900.....	Rec. XII, 1017, 1097

Mississippi Station.

First An. Rpt., 1888.....	Bul. 2, I, 106	Seventh An. Rpt., 1894 ..	Rec. VII, 258
Bul. 6, June, 1889	Rec. I, 101	Bul. 34, May, 1895.....	Rec. VII, 371
Bul. 7, June, 1889	Rec. I, 101	Bul. 35, Sept., 1895.....	Rec. VII, 804
Bul. 8, Aug., 1889	Rec. I, 233	Bul. 36, Nov., 1895.....	Rec. VII, 878
Bul. 9, Aug., 1889	Rec. I, 233	Bul. 37, Mar., 1896.....	Rec. VIII, 134
Bul. 10, Oct., 1889.....	Rec. I, 233	Eighth An. Rpt., 1895. .	Rec. VIII, 476, 482, 484, 487, 490, 491, 492, 497, 504, 507, 510, 520, 525, 526, 537
Bul. 11, Feb., 1890	Rec. II, 159	Bul. 38, May, 1896.....	Rec. VIII, 749
Bul. 12, June, 1890	Rec. II, 240	Ninth An. Rpt., 1896....	Rec. VIII, 937
Bul. 13, Sept., 1890.....	Rec. II, 362	Bul. 39, Aug., 1896	Rec. IX, 168
Second An. Rpt., 1889	Rec. II, 410	Bul. 40, Dec., 1896.....	Rec. IX, 551
Third An. Rpt., 1890	Rec. II, 656	Bul. 41, Mar., 1897.....	Rec. IX, 575
Bul. 14, Mar., 1891.....	Rec. II, 659	Bul. 42, Nov., 1897	Rec. X, 390
Bul. 15, June, 1891.....	Rec. III, 166	Bul. 42 (spec.), Jan., 1898.	Rec. IX, 1044
Bul. 16, Sept., 1891.....	Rec. III, 398	Bul. 43, Feb., 1898.....	Rec. IX, 1043
Bul. 17, Dec., 1891.....	Rec. III, 702	Bul. 44, Jan. 1898.....	Rec. IX, 1048
Bul. 18, Jan., 1892.....	Rec. III, 702	Bul. 45, Feb., 1898	Rec. IX, 1044
Bul. 19, Jan., 1892.....	Rec. III, 702	Bul. 46, Mar., 1898	Rec. X, 48
Fourth An. Rpt., 1891....	Rec. III, 874	Bul. 47, Mar., 1898	Rec. X, 36
Bul. 20, Feb., 1892.....	Rec. IV, 248	Bul. 48, May, 1898.....	Rec. X, 136
Bul. 21, June, 1892. Rec. IV,	254, 259, 267	Bul. 49, June, 1898	Rec. X, 428
Bul. 22, Sept., 1892.....	Rec. IV, 551	Bul. 50, Sept., 1898.....	Rec. X, 547
Tech. Bul. 1, Dec., 1892. Rec. IV,	714, 719	Tenth An. Rpt., 1897..	Rec. X, 315, 397
Bul. 23, Feb., 1893.....	Rec. IV, 720	Bul. 51, Jan., 1899.....	Rec. XI, 39
Bul. 24, Feb., 1893.....	Rec. IV, 720	Bul. 52, Jan., 1899	Rec. XI, 39
Bul. 25, June, 1893.....	Rec. V, 78	Bul. 53, Mar., 1899	Rec. XI, 272
Bul. 26, Aug., 1893.....	Rec. V, 300	Bul. 54, Mar., 1899	Rec. XI, 241
Fifth An. Rpt., 1892.....	Rec. V, 324	Bul. 55, Mar., 1899	Rec. XI, 229
Bul. 27, Nov., 1893.....	Rec. V, 792	Bul. 56, Apr., 1899.....	Rec. XI, 253
Bul. 28, Jan., 1894.....	Rec. VI, 437	Bul. 57, Apr., 1899	Rec. XI, 229
Bul. 29, May, 1894.....	Rec. VI, 395	Bul. 58, May, 1899.....	Rec. XI, 328
Bul. 30, May, 1894.....	Rec. VI, 442	Bul. 59, June, 1899	Rec. XI, 528
Sixth An. Rpt., 1893.. Rec. VI,	786, 789, 797, 798, 799, 806, 807, 808, 819, 821, 829, 838, 843, 846, 847, 849	Eleventh An. Rpt., 1898.	Rec. XI, 821, 897
Bul. 31, Sept., 1894	Rec. VII, 65	Bul. 60, Sept., 1899	Rec. XI, 1022, 1068, 1069, 1072, 1079, 1080, 1084
Bul. 32, Dec., 1894.....	Rec. VII, 230	Bul. 61, Jan., 1900.....	Rec. XII, 38
Bul. 33, Mar., 1895.....	Rec. VII, 199		

Mississippi Station—Continued.

	Volume and page.		Volume and page.
Twelfth An. Rpt., 1899..	Rec. XII, 213, 218, 220, 222, 229, 234, 244, 256, 282, 288, 297	Bul. 64, Aug., 1900	Rec. XII, 841
Bul. 62, Apr., 1900	Rec. XII, 844	Thirteenth An. Rpt., 1900..	Rec. XII, 849, 867, 878, 883, 890, 897
Bul. 63, June, 1900	Rec. XII, 843	Bul. 65, June, 1900	Rec. XII, 1022

Missouri Station.

First An. Rpt.....	Bul. 2, I, 110	Bul. 33, Jan., 1896.....	Rec. VIII, 216
Bul. 5, Feb., 1889	Rec. I, 101	Bul. 34, Apr., 1896.....	Rec. VIII, 969, 970, 973
Bul. 6, 1889.....	Rec. I, 102	Bul. 35, July, 1896.....	Rec. IX, 155
Bul. 7, 1889.....	Rec. I, 249	Bul. 36, Oct., 1896.....	Rec. IX, 157
Bul. 8, 1889.....	Rec. I, 250	Bul. 37, Jan., 1897.....	Rec. IX, 188
Bul. 9, Dec., 1889	Rec. I, 251	An. Rpt., 1896	Rec. IX, 197
Bul. 10, Apr., 1890	Rec. II, 25	Bul. 38, Apr., 1897....	Rec. IX, 835, 837
Bul. 11, May, 1890	Rec. II, 160	Circ. of Information 3, Apr., 1896,	
Bul. 12, June, 1890.....	Rec. II, 363		Rec. IX, 862
Bul. 13, Jan., 1891.....	Rec. II, 586	Bul. 39, July, 1897.....	Rec. IX, 997
Bul. 14, Apr., 1891	Rec. III, 24	Bul. 40, Oct., 1897.....	Rec. IX, 944
Bul. 15, July, 1891	Rec. III, 167	An. Rpt., 1897.....	Rec. X, 35, 36, 44, 48, 68, 95, 96, 98
Bul. 16, Nov., 1891	Rec. III, 444	Bul. 41, Jan., 1898.....	Rec. X, 566
Bul. 17, Jan., 1892.....	Rec. III, 877	Bul. 42, Apr., 1898	Rec. X, 564
Bul. 18, Aug., 1892	Rec. IV, 412	Bul. 43, May, 1898	Rec. X, 548
Bul. 19, Oct., 1892.....	Rec. V, 975	Bul. 44, Oct., 1898.....	Rec. XI, 268
Bul. 20, Jan., 1893.....	Rec. V, 1070	Bul. 45, Jan., 1899.....	Rec. XI, 236
Bul. 21, Apr., 1893.....	Rec. VII, 861	Bul. 46, Apr., 1899.....	Rec. XI, 349
Bul. 22, July, 1893.....	Rec. VII, 306	Bul. 47, July, 1899.....	Rec. XI, 367
Bul. 23, Oct., 1893	Rec. VII, 306	Circ. of Information 9, Mar. 23,	
Bul. 24, Jan., 1894.....	Rec. VII, 324	1899.....	Rec. XI, 898
Bul. 25, Apr., 1894.....	Rec. VII, 327	Bul. 48, Oct., 1899.....	Rec. XI, 988
Bul. 26, July, 1894.....	Rec. VII, 329	An. Rpt., 1898.....	Rec. XI, 1004, 1005, 1006, 1008, 1015, 1025, 1042, 1043, 1068, 1075, 1076, 1078, 1095
Bul. 27, Oct., 1894.....	Rec. VII, 310	Bul. 49, Jan., 1900.....	Rec. XII, 553
Bul. 28, Jan., 1895.....	Rec. VII, 337	Bul. 50, Apr., 1900	Rec. XII, 578
Bul. 29, Apr., 1895.....	Rec. VII, 980		
Bul. 30, Apr., 1895.....	Rec. VII, 965		
Bul. 31, July, 1895.....	Rec. VIII, 140		
Bul. 32, Oct., 1895	Rec. VIII, 213		

Montana Station.

Bul. 1, Mar., 1894.....	Rec. VI, 172	Bul. 12, Sept., 1896 (Third An. Rpt., 1896) ..	Rec. IX, 355, 363, 391, 396
Bul. 2, May, 1894	Rec. VI, 147	Bul. 13, Feb., 1897	Rec. IX, 335
Bul. 3, June, 1894	Rec. VI, 931	Bul. 14, Apr., 1897	Rec. X, 177, 196
Bul. 4, June, 1894	Rec. VI, 932	Bul. 15, July, 1897	Rec. X, 391
Bul. 5, Feb., 1895 (First An. Rpt., 1894)	Rec. VII, 165	Bul. 16 (Fourth An. Rpt., 1897), Feb., 1898.....	Rec. XI, 246, 251, 295
Bul. 6, June, 1895	Rec. VII, 431	Bul. 17, Apr., 1898	Rec. XI, 266
Bul. 7, June, 1895	Rec. VII, 858	Bul. 18, June, 1898	Rec. XI, 223
Bul. 8, July, 1895 (Second An. Rpt., 1895).....	Rec. VII, 986, 994	Bul. 19, Oct., 1898.....	Rec. XI, 537
Bul. 9, Apr., 1896....	Rec. VIII, 121, 137	Bul. 20 (Fifth An. Rpt., 1898), Aug., 1898	Rec. XI, 1037, 1046, 1048, 1051, 1095
Bul. 10, June, 1896..	Rec. VIII, 588, 606		
Bul. 11, June, 1896.....	Rec. VIII, 935		

Montana Station—Continued.

	Volume and page.		Volume and page.
Bul. 21, May, 1899.....	Rec. XII, 72	Bul. 24 (Sixth An. Rpt., 1899),	
Bul. 22, June, 1899.....	Rec. XII, 827,	July, 1899	Rec. XII, 849, 853, 897
	854, 859, 868, 891, 894	Bul. 25, Apr., 1900.....	Rec. XII, 822
Bul. 23, May, 1900.....	Rec. XII, 869		

Nebraska Station.

Second An. Rpt., 1888....	Bul. 2, I, 110	Bul. 39, Jan., 1895.....	Rec. VI, 990
Bul. 5, Jan., 1889.....	Rec. I, 120	Bul. 40, Jan., 1895.....	Rec. VI, 1003
Bul. 6, Mar., 1889.....	Rec. I, 120	Bul. 41, Feb., 1895.....	Rec. VI, 1028
Buls. 7-10, June, 1889.....	Rec. I, 123	Bul. 42, Jan.-Dec., 1895....	Rec. VII, 843
Bul. 11, Dec., 1889.....	Rec. I, 252	Bul. 43, Sept., 1895.....	Rec. VII, 847
Bul. 12, Feb., 1890.....	Rec. I, 254	Bul. 44, Apr., 1896.....	Rec. VIII, 220
Bul. 13, Apr., 1890.....	Rec. II, 111	Ninth An. Rpt., 1895....	Rec. VIII, 267
Bul. 14, June, 1890.....	Rec. II, 115	Bul. 45, June, 1896.....	Rec. VIII, 292
Bul. 15, Sept., 1890.....	Rec. II, 240	Bul. 46, Mar., 1896.....	Rec. VIII, 964
Third An. Rpt., 1889.....	Rec. II, 498	Tenth An. Rpt., 1896....	Rec. VIII, 1033
Bul. 16, Apr., 1891.....	Rec. II, 731	Bul. 47, Feb., 1897.....	Rec. IX, 93
Fourth An. Rpt., 1890.....	Rec. III, 27	Eleventh An. Rpt., 1897..	Rec. X, 246,
Bul. 17, June, 1891.....	Rec. III, 28		273, 296, 297
Bul. 18, 1891.....	Rec. III, 521	Bul. 48, Apr., 1897.....	Rec. IX, 354
Bul. 19, 1891.....	Rec. III, 703	Bul. 49, Apr., 1897.....	Rec. IX, 357
Bul. 20, Mar., 1892.....	Rec. III, 799	Bul. 50, Nov., 1897.....	Rec. X, 45
Bul. 21, Mar., 1892.....	Rec. III, 800	Bul. 51, Dec., 1897.....	Rec. X, 463
Fifth An. Rpt., 1891.....	Rec. IV, 197	Bul. 52, Jan., 1898.....	Rec. X, 494
Bul. 22, Oct., 1892.....	Rec. IV, 843	Bul. 53, Mar., 1898.....	Rec. X, 429
Bul. 23, Oct., 1892.....	Rec. IV, 843	Bul. 54, June, 1898.....	Rec. X, 428
Bul. 24, Sept., 1892.....	Rec. IV, 839	Bul. 55, Aug., 1898.....	Rec. X, 638
Bul. 25, Dec., 1892.....	Rec. IV, 810	Bul. 56, Aug., 1898.....	Rec. X, 637
Bul. 26, Mar., 1893.....	Rec. IV, 803	Bul. 57, Apr., 1899... ..	Rec. XI, 240, 296
Bul. 27, Mar., 1893... ..	Rec. V, 44, 60, 62	Bul. 58, Apr., 1899.....	Rec. XI, 279
Sixth An. Rpt., 1892.....	Rec. V, 216	Twelfth An. Rpt., 1898... ..	Rec. XI, 314,
Bul. 28, Mar., 1893.....	Rec. V, 414		370, 393, 396
Bul. 29, Apr., 1893.....	Rec. V, 575	Bul. 59, 1899.....	Rec. XI, 896
Bul. 30, Oct., 1893.....	Rec. V, 598	Bul. 60, Sept., 1899.....	Rec. XI, 839
Seventh An. Rpt., 1893....	Rec. V, 691	Bul. 61, Dec., 1899.....	Rec. XI, 1030
Bul. 31, Dec., 1893.....	Rec. V, 787	Bul. 62, Mar., 1900.....	Rec. XII, 274
Bul. 32, Feb., 1894.....	Rec. V, 856, 869	Bul. 63, Apr., 1900.....	Rec. XII, 486
Bul. 33, Apr., 1894.....	Rec. VI, 117, 123	Thirteenth An. Rpt., 1899.	Rec. XII, 419,
Bul. 34, May, 1894.....	Rec. VI, 150		426, 430, 436, 442, 449, 468,
Bul. 35, May, 1894....	Rec. VI, 203, 216		478, 487, 488, 491, 496, 498
Bul. 36, May, 1894.....	Rec. VI, 209	Bul. 64, May, 1900... ..	Rec. XII, 442, 497
Eighth An. Rpt., 1894....	Rec. VII, 340	Bul. 65, June, 1900.....	Rec. XII, 691
Bul. 37, Jan.-Dec., 1894.	Rec. VI, 976, 978	Bul. 66, Aug., 1900.....	Rec. XII, 875
Bul. 38, Aug., 1894.....	Rec. VI, 985	Bul. 67, Aug., 1900.....	Rec. XII, 846

Nevada Station.

First An. Rpt., 1888.....	Bul. 2, I, 113	Bul. 9, May, 1890.....	Rec. II, 162
Bul. 5, June, 1889.....	Rec. I, 127	Bul. 10, July, 1890.....	Rec. II, 241
Bul. 6, Sept., 1889.....	Rec. I, 255	Bul. 11, Sept., 1890.....	Rec. II, 241
Bul. 7, Dec., 1889.....	Rec. I, 255	Second An. Rpt., 1889....	Rec. II, 412
Bul. 8, Jan., 1890.....	Rec. II, 162	Bul. 12, Apr., 1891.....	Rec. II, 734

Nevada Station—Continued.

	Volume and page.		Volume and page.
Third An. Rpt., 1890	Rec. III, 29	Seventh An. Rpt., 1894..	Rec. VIII, 689, 736
Bul. 13, Oct., 1891.....	Rec. III, 445	Eighth An. Rpt., 1895.	Rec. VIII, 781, 836
Bul. 14, Dec., 1891.....	Rec. III, 802	Bul. 32, Dec., 1896.....	Rec. IX, 349
Fourth An. Rpt., 1891....	Rec. III, 802	Bul. 33, Nov., 1896	Rec. IX, 348
Bul. 15, Jan., 1892.....	Rec. III, 803	Bul. 34, Dec., 1896.....	Rec. X, 31
Bul. 16, Apr., 1892	Rec. IV, 189	Bul. 35, Dec., 1896.....	Rec. X, 147
Bul. 17, July, 1892.....	Rec. IV, 254	Bul. 36, Dec., 1897.....	Rec. X, 163
Bul. 18, Nov., 1892	Rec. IV, 577	Ninth An. Rpt., 1896.....	Rec. X, 297
Bul. 19, Dec., 1892.....	Rec. V, 286, 293	Bul. 37, Dec., 1897.....	Rec. X, 631
Fifth An. Rpt., 1892.....	Rec. V, 324	Bul. 38, 1897.....	Rec. XI, 158
Bul. 20, Mar., 1893	Rec. V, 493, 495	Bul. 39, Dec., 1897.....	Rec. XI, 133
Bul. 21, Sept., 1893	Rec. V, 497	Tenth An. Rpt., 1897.....	Rec. XI, 898
Bul. 22, Dec., 1893.....	Rec. VI, 57	Bul. 40, Dec., 1898.....	Rec. XII, 174
Sixth An. Rpt., 1893..	Rec. VI, 293, 347	Bul. 41, Dec., 1898.....	Rec. XII, 173
Bul. 23, Dec., 1893.....	Rec. VI, 411	Bul. 42, Dec., 1898.....	Rec. XII, 593
Bul. 24, Nov., 1894	Rec. VII, 92	Bul. 43, Dec., 1898.....	Rec. XII, 541
Bul. 25, Dec., 1894.....	Rec. VII, 431	Bul. 44, Dec., 1898.....	Rec. XII, 542
Bul. 26, Dec., 1894.....	Rec. VII, 891	Bul. 45, Dec., 1898.....	Rec. XII, 519
Bul. 27, Dec., 1894.....	Rec. VII, 862	Bul. 46, June, 1900	Rec. XII, 827
Bul. 28, Nov., 1895	Rec. VII, 878	Bul. 47, Aug., 1900	Rec. XII, 959
Bul. 29, Dec., 1895.....	Rec. VIII, 67	Bul. 48, June, 1900	Rec. XII, 1014
Bul. 30, Dec., 1895.....	Rec. VIII, 224		
Bul. 31, Dec., 1895.....	Rec. VIII, 625		

New Hampshire Station.

First An. Rpt., 1888	Bul. 2, II, 94	Bul. 24, Feb., 1895.....	Rec. VII, 92
Bul. 5, Mar., 1889.....	Rec. I, 127	Bul. 25, Mar., 1895....	Rec. VII, 90, 162
Bul. 6, Apr., 1889	Rec. I, 127	Bul. 26, Mar., 1895	Rec. VII, 109
Bul. 7, May, 1889	Rec. I, 130	Bul. 27, Apr., 1895.....	Rec. VII, 223
Bul. 8, Nov., 1889	Rec. I, 255	Bul. 28, June, 1895	Rec. VII, 315
Bul. 9, Feb., 1890	Rec. II, 65	Bul. 29, June, 1895	Rec. VII, 315
Bul. 10, Mar., 1890	Rec. II, 412	Bul. 30, July, 1895.....	Rec. VII, 530
Bul. 11, Nov., 1890.....	Rec. II, 413	Sixth An. Rpt., 1894...	Rec. VIII, 298, 300, 318, 321, 331, 347, 348, 352
Bul. 12, Mar., 1891	Rec. II, 734	Bul. 31, Nov., 1895 (Seventh An.	
Bul. 13, May, 1891.....	Rec. III, 86	Rpt., 1895)....	Rec. VIII, 321, 333, 352
Bul. 14, May, 1891.....	Rec. III, 86	Bul. 32, Sept., 1895	Rec. VIII, 347
Second An. Rpt., 1889	Rec. III, 291	Bul. 33, Nov., 1895	Rec. VIII, 318
Bul. 15, Dec., 1891	Rec. III, 877	Bul. 34, Apr., 1896.....	Rec. VIII, 349
Bul. 16, Sept., 1892	Rec. IV, 662	Bul. 35, May, 1896.....	Rec. VIII, 414
Bul. 17, Oct., 1892.....	Rec. IV, 665	Bul. 36, June, 1896	Rec. VIII, 416
Third and Fourth An. Rpts.,		Bul. 37, July, 1896.....	Rec. VIII, 586
1890 and 1891.....	Rec. V, 30, 35, 60, 63, 66, 68, 73, 76, 87, 89	Bul. 38, Aug., 1896	Rec. VIII, 613
Bul. 18, Nov., 1892	Rec. V, 688	Bul. 39, Sept., 1896	Rec. VIII, 608
Bul. 19, Feb., 1894.....	Rec. VI, 302	Bul. 40, Nov., 1896 (Eighth An.	
Fifth An. Rpt., 1893.	Rec. VII, 90, 99, 108, 111, 126, 141, 152, 155, 156, 161, 162, 165	Rpt., 1896).....	Rec. VIII, 1003, 1033
Bul. 20, Mar., 1894	Rec. VII, 150	Bul. 41, Jan., 1897.....	Rec. IX, 45
Bul. 21, Apr., 1894.....	Rec. VII, 107	Bul. 42, Feb., 1897	Rec. IX, 46, 51
Bul. 22, May, 1894.....	Rec. VII, 140	Bul. 43, Feb., 1897	Rec. IX, 36, 74
Bul. 23, Nov., 1894	Rec. VII, 143	Bul. 44, Apr., 1897	Rec. IX, 160
		Bul. 45, May, 1897.....	Rec. IX, 763

New Hampshire Station—Continued.

	Volume and page.		Volume and page.
Bul. 46, Aug., 1897	Rec. IX, 797	Bul. 61, Feb., 1899	Rec. XI, 138
Bul. 47, Oct., 1897	Rec. X, 48	Bul. 62, Feb., 1899	Rec. XI, 147
Bul. 48, Nov., 1897 (Ninth An. Rpt., 1897)	Rec. X, 419, 429, 432, 440, 453, 459, 492, 498	Bul. 63, Mar., 1899	Rec. XI, 235
Bul. 49, Jan., 1898	Rec. X, 36	Bul. 64, Apr., 1899	Rec. XI, 269
Bul. 50, Feb., 1898	Rec. X, 395	Bul. 65, May, 1899	Rec. XI, 255
Bul. 51, Mar., 1898	Rec. X, 354	Bul. 66, Sept., 1899	Rec. XI, 967
Bul. 52, Apr., 1898	Rec. X, 350	Bul. 67, Oct., 1899	Rec. XII, 167
Bul. 53, May, 1898	Rec. X, 730	Bul. 68, Nov., 1899 (Eleventh An. Rpt., 1899)	Rec. XII, 117, 120, 185, 198
Bul. 54, June, 1898	Rec. X, 726	Bul. 69, Jan., 1900	Rec. XII, 274
Bul. 55, July, 1898	Rec. X, 726	Bul. 70, Jan., 1900	Rec. XII, 341
Bul. 56, Aug., 1898	Rec. X, 923	Bul. 71, Feb., 1900	Rec. XII, 432
Bul. 57, Sept., 1898	Rec. X, 945	Bul. 72, Feb., 1900	Rec. XII, 468
Bul. 58, Oct., 1898	Rec. XI, 178	Bul. 73, Mar., 1900	Rec. XII, 449
Bul. 59, Nov., 1898 (Tenth An. Rpt., 1898)	Rec. XI, 128, 136, 140, 145, 152, 153, 159, 169, 188, 197	Bul. 74, Apr., 1900	Rec. XII, 450
Bul. 60, Jan., 1899	Rec. XI, 146	Bul. 75, May, 1900	Rec. XII, 466
		Bul. 76, June, 1900	Rec. XII, 1039
		Bul. 77, Sept., 1900	Rec. XII, 1095

New Jersey Stations.

An. Rpts., 1888	Bul. 2, I, 113	Bul. 72, Oct., 1890	Rec. II, 281
Bul. 52, Mar., 1889	Rec. I, 130	Bul. 73, Oct., 1890	Rec. II, 281
Bul. 53, Mar., 1889	Rec. I, 131	Bul. 74, Oct., 1890	Rec. II, 282
Bul. 54, Mar., 1889	Rec. I, 131	Bul. 75, Nov., 1890	Rec. II, 415
Bul. 55, Mar., 1889	Rec. I, 134	Bul. 76, Nov., 1890	Rec. II, 416
Spec. Bul. C, Apr., 1889	Rec. I, 134	Spec. Bul. K, Feb., 1890	Rec. II, 418
Spec. Bul. D, Apr., 1889	Rec. I, 134	Bul. 77, Dec., 1890	Rec. II, 499
Spec. Bul. E, Apr., 1889	Rec. I, 134	Bul. 78, Jan., 1891	Rec. II, 501
Bul. 56, July, 1889	Rec. I, 256	Spec. Bul. L, Apr., 1890	Rec. II, 501
Bul. 57, July, 1889	Rec. I, 258	Bul. 79, Feb., 1891	Rec. III, 30
Bul. 58, Aug., 1889	Rec. I, 258	Bul. 80, Mar., 1891	Rec. III, 32
Bul. 59, Sept., 1889	Rec. I, 256	Bul. 81, July, 1891	Rec. III, 168
Bul. 60, Oct., 1889	Rec. I, 259	Bul. 82, July, 1891	Rec. III, 169
Bul. 61, Oct., 1889	Rec. I, 260	An. Rpts., 1889	Rec. III, 292
Bul. 62, Nov., 1889	Rec. I, 260	An. Rpts., 1890	Rec. III, 299
Bul. 63, Dec., 1889	Rec. I, 261	Bul. 83, Sept., 1891	Rec. III, 310
Bul. 64, Dec., 1889	Rec. I, 263	Bul. 84, Oct., 1891	Rec. III, 523
Spec. Bul. F, July, 1889	Rec. I, 264	Bul. 85, Dec., 1891	Rec. III, 610
Spec. Bul. G, Aug., 1889	Rec. I, 264	Spec. Bul. M, Nov., 1891	Rec. III, 703
Spec. Bul. H, Aug., 1889	Rec. I, 264	Spec. Bul. N, Nov., 1891	Rec. III, 705
Spec. Bul. I, Oct., 1889	Rec. I, 264	Bul. 86, Apr., 1892	Rec. III, 878
Spec. Bul. J, Nov., 1889	Rec. I, 265	Bul. 87, Apr., 1892	Rec. III, 878
Bul. 65, Jan., 1890	Rec. II, 162	Spec. Bul. O, Apr., 1892	Rec. III, 879
Bul. 66, Mar., 1890	Rec. II, 164	Spec. Bul. P, Apr., 1892	Rec. III, 881
Bul. 67, May, 1890	Rec. II, 164	Spec. Bul. Q, Apr., 1892	Rec. III, 884
Bul. 68, Apr., 1890	Rec. II, 241	An. Rpts., 1891	Rec. IV, 25, 29, 30, 39, 40, 42, 45, 51, 56, 64, 71, 79
Bul. 69, July, 1890	Rec. II, 241	Bul. 88, July, 1892	Rec. IV, 245
Bul. 70, July, 1890	Rec. II, 241	Bul. 89, Oct., 1892	Rec. IV, 465
Bul. 71, Aug., 1890	Rec. II, 280		

New Jersey Stations—Continued.

	Volume and page.
Bul. 90, Dec., 1892.....	Rec. IV, 564
Bul. 91, Dec., 1892.....	Rec. IV, 656
Bul. 92, Feb., 1893.....	Rec. IV, 742
Bul. 93, July, 1893.....	Rec. V, 288
An. Rpts., 1892.....	Rec. V, 384, 385, 390, 391, 392, 393, 396, 397, 398, 399, 402, 410, 411, 415
Bul. 94, July, 1893.....	Rec. V, 406
Bul. 95, Sept., 1893.....	Rec. V, 409
Bul. 96, Oct., 1893.....	Rec. V, 499
Bul. 97, Nov., 1893.....	Rec. V, 571
Bul. 98, Dec., 1893.....	Rec. V, 685
Bul. 99, Apr., 1894.....	Rec. VI, 148
Bul. 100, June, 1894.....	Rec. VI, 204
Bul. 101, July, 1894.....	Rec. VI, 332
Bul. 102, July, 1894.....	Rec. VI, 396
Bul. 103, Oct., 1894.....	Rec. VI, 649
Bul. 104, Nov., 1894.....	Rec. VI, 706
An. Rpts., 1893.....	Rec. VI, 785, 794, 797, 805, 806, 807, 808, 811, 812, 813, 816, 818, 823, 835, 841, 842, 846, 849
Bul. 105, Nov., 1894.....	Rec. VI, 839
Bul. 106, Nov., 1894.....	Rec. VI, 832
Bul. 107, Jan., 1895.....	Rec. VI, 905
Bul. 108, Feb., 1895.....	Rec. VI, 994
Bul. 109, Feb., 1895.....	Rec. VII, 40
Bul. 110, Aug., 1895.....	Rec. VII, 514
Bul. 111, Sept., 1895.....	Rec. VII, 515
An. Rpts., 1894.....	Rec. VII, 668, 673, 674, 679, 680, 681, 682, 683, 686, 687, 689, 690, 696, 702, 709, 720
Bul. 112, Oct., 1895.....	Rec. VII, 780
Bul. 113, Nov., 1895.....	Rec. VII, 940
Bul. 114, Nov., 1895.....	Rec. VII, 942, 958
Bul. 115, Nov., 1895.....	Rec. VIII, 115, 127
Bul. 116, Sept., 1896.....	Rec. VIII, 413
An. Rpts., 1895.....	Rec. VIII, 877, 880, 881, 883, 884, 885, 886, 887, 888, 892, 903, 924, 937
Bul. 117, Nov., 1896.....	Rec. VIII, 966
Bul. 118, Nov., 1896.....	Rec. VIII, 1015
Bul. 119, Mar., 1897.....	Rec. IX, 47
Bul. 120, Mar., 1897.....	Rec. IX, 43, 57

	Volume and page.
Bul. 121, Mar., 1897.....	Rec. IX, 68
An. Rpts., 1896.....	Rec. IX, 618, 636, 637, 644, 645, 649, 651, 653, 664, 682, 688, 690, 697, 698
Bul. 122, Aug., 1897.....	Rec. IX, 790
Bul. 123, Sept., 1897.....	Rec. IX, 985
Bul. 124, Nov., 1897.....	Rec. IX, 934
Bul. 125, Nov., 1897.....	Rec. X, 161
Spec. Bul. R, Dec., 1897.....	Rec. X, 198
Bul. 126, Nov., 1897.....	Rec. X, 440
Bul. 127, Nov., 1897.....	Rec. X, 497
Bul. 128, Feb., 1898.....	Rec. X, 656
Bul. 129, June, 1898.....	Rec. X, 650
Bul. 130, Oct., 1898.....	Rec. X, 946, 992
Bul. 131, Oct., 1898.....	Rec. X, 977
Bul. 132, Oct., 1898.....	Rec. X, 1031
An. Rpts., 1897.....	Rec. X, 426, 431, 433, 435, 443, 457, 474, 476, 480, 482, 490, 494, 498
Bul. 133, Jan., 1899.....	Rec. XI, 51
Bul. 134, Jan., 1899.....	Rec. XI, 125
Bul. 135, Feb., 1899.....	Rec. XI, 112
Bul. 136, Apr., 1899.....	Rec. XI, 439, 440, 444
An. Rpts., 1898.....	Rec. XI, 714, 718, 720, 735, 739, 743, 749, 750, 760, 777, 783, 791, 799
Bul. 137, Aug., 1899.....	Rec. XI, 883
Bul. 138, Sept., 1899.....	Rec. XI, 868
Bul. 139, Sept., 1899.....	Rec. XI, 829
Bul. 140, Oct., 1899.....	Rec. XI, 958
Bul. 141, Dec., 1899.....	Rec. XII, 144
Bul. 142, Jan., 1900.....	Rec. XII, 146
Bul. 143, Mar., 1900.....	Rec. XII, 268
An. Rpts., 1899.....	Rec. XII, 312, 321, 322, 324, 330, 331, 344, 347, 350, 351, 365, 378, 382, 390, 398
Spec. Bul. S, Feb., 1900..	Rec. XII, 360
Bul. 144, June, 1900.....	Rec. XII, 754
Bul. 145, Oct., 1900.....	Rec. XII, 840
Bul. 146, Nov., 1900.....	Rec. XII, 971
Bul. 147, Dec., 1900.....	Rec. XII, 1062

New Mexico Station.

Bul. 1, Apr., 1890.....	Rec. II, 418
Bul. 2, Oct., 1890.....	Rec. II, 419
First An. Rpt., 1890.....	Rec. III, 36
Bul. 3, June, 1891.....	Rec. III, 230
Second An. Rpt., 1891....	Rec. III, 803
Bul. 4, Dec., 1891.....	Rec. III, 885

Bul. 5, Mar., 1892.....	Rec. III, 886
Bul. 6, Mar., 1892.....	Rec. IV, 411
Bul. 7, June, 1892.....	Rec. IV, 418
Bul. 8, Nov., 1892.....	Rec. IV, 824
Bul. 9, Dec., 1892.....	Rec. IV, 840
Third An. Rpt., 1892.....	Rec. V, 324

New Mexico Station—Continued.

	Volume and page.		Volume and page.
Bul. 10, Sept., 1893.....	Rec. V, 884	Bul. 23, Apr., 1897.....	Rec. X, 246
Bul. 11, Oct., 1893..	Rec. V, 857, 860, 862	Bul. 24, Aug., 1897.....	Rec. X, 324
Bul. 12, Nov. 1893.....	Rec. V, 1002	Bul. 25, Feb., 1898.....	Rec. X, 562
Fourth An. Rpt., 1893.....	Rec. VI, 347	Bul. 26, June, 1898.....	Rec. X, 745
Bul. 13, Oct., 1894.....	Rec. VI, 731	Bul. 27, June, 1898....	Rec. X, 854, 871
Bul. 14, Dec., 1894.....	Rec. VI, 984	Eighth An. Rpt., 1897....	Rec. XI, 599
Bul. 15, Jan., 1895.....	Rec. VII, 43	Ninth An. Rpt., 1898.....	Rec. XI, 599
Fifth An. Rpt., 1894.....	Rec. VII, 258	Bul. 28, Dec., 1898.....	Rec. XI, 956
Bul. 16, Sept., 1895.....	Rec. VIII, 57	Bul. 29, May, 1899.....	Rec. XI, 1035
Sixth An. Rpt., 1895.....	Rec. VIII, 267	Bul. 30, May, 1899.....	Rec. XI, 1044
Bul. 17, Dec., 1895.....	Rec. VIII, 331	Bul. 31, Dec., 1899.....	Rec. XII, 425
Bul. 18, Mar., 1896.....	Rec. VIII, 306	Bul. 32, Dec., 1899.....	Rec. XII, 538
Bul. 19, Apr., 1896.....	Rec. VIII, 611	Bul. 33, Apr., 1900.....	Rec. XII, 526, 538, 539, 570, 580, 587
Bul. 20, Dec., 1896.....	Rec. IX, 453	Bul. 34, June, 1900.....	Rec. XII, 834
Bul. 21, Jan., 1897.....	Rec. IX, 446	Bul. 35, Oct., 1900.....	Rec. XII, 974
Bul. 22, Mar., 1897.....	Rec. IX, 428	Bul. 36, Oct., 1900.....	Rec. XII, 997
Seventh An. Rpt., 1896....	Rec. IX, 498		

New York State Station.

Seventh An. Rpt., 1888...	Bul. 2, I, 143	Bul. 43 (n. s.), June, 1892 ..	Rec. IV, 365
Bul. 16 (n. s.), July, 1889...	Rec. I, 265	Bul. 44 (n. s.), Aug., 1892 ..	Rec. IV, 352
Bul. 17 (n. s.), Oct., 1889...	Rec. I, 266	Bul. 45 (n. s.), Aug., 1892 ..	Rec. IV, 426
Bul. 18 (n. s.), Nov., 1889 ..	Rec. I, 269	Bul. 46 (n. s.), Sept., 1892 ..	Rec. IV, 575
Bul. 19 (n. s.), June, 1890 ..	Rec. II, 242	Bul. 47 (n. s.), Nov., 1892 ..	Rec. IV, 575
Bul. 20 (n. s.), June, 1890 ..	Rec. II, 243	Bul. 48 (n. s.), Dec., 1892 ..	Rec. IV, 557
Bul. 21 (n. s.), July, 1890 ..	Rec. II, 243	Bul. 49 (n. s.), Jan., 1893. Rec. IV,	559, 561
Bul. 22 (n. s.), Aug., 1890 ..	Rec. II, 282	Bul. 50 (n. s.), Jan., 1893 ..	Rec. IV, 945
Bul. 23 (n. s.), Sept., 1890 ..	Rec. II, 364	Bul. 51 (n. s.), Mar., 1893 ..	Rec. IV, 925
Bul. 24 (n. s.), Oct., 1890...	Rec. II, 365	Bul. 52 (n. s.), Mar., 1893 ..	Rec. IV, 903
Bul. 25 (n. s.), Nov., 1890..	Rec. II, 366	Bul. 53 (n. s.), Apr., 1893 ..	Rec. IV, 938
Eighth An. Rpt., 1889	Rec. II, 587	Bul. 54 (n. s.), May, 1893.....	Rec. V, 85
Bul. 26 (n. s.), Jan., 1891...	Rec. II, 659	Bul. 55 (n. s.), May, 1893 ..	Rec. V, 164
Bul. 27 (n. s.), Feb., 1891 ..	Rec. II, 735	Bul. 56 (n. s.), May, 1893 ..	Rec. V, 211
Bul. 28 (n. s.), Apr., 1891 ..	Rec. II, 735	Bul. 57 (n. s.), June, 1893 ..	Rec. V, 201
Bul. 29 (n. s.), Apr., 1891 ...	Rec. III, 36	Bul. 58 (n. s.), July, 1893 ..	Rec. V, 290
Bul. 30 (n. s.), May, 1891 ...	Rec. III, 38	Bul. 59 (n. s.), Sept., 1893...	Rec. V, 487
Bul. 31 (n. s.), May, 1891 ...	Rec. III, 89	Bul. 60 (n. s.), Oct., 1893...	Rec. V, 603
Bul. 32 (n. s.), June, 1891 ...	Rec. III, 89	Bul. 61 (n. s.), Nov., 1893...	Rec. V, 605
Bul. 33 (n. s.), July, 1891 ..	Rec. III, 311	Bul. 62 (n. s.), Dec., 1893... Rec. V,	689
Bul. 34 (n. s.), Aug., 1891 ..	Rec. III, 311	Bul. 63 (n. s.), Dec., 1893...	Rec. V, 786
Bul. 35 (n. s.), Aug., 1891 ..	Rec. III, 313	Bul. 64 (n. s.), Jan., 1894...	Rec. V, 874
Bul. 36 (n. s.), Sept., 1891 ..	Rec. III, 313	Bul. 65 (n. s.), Jan., 1894...	Rec. V, 892
Ninth An. Rpt., 1890	Rec. III, 398	Bul. 66 (n. s.), Jan., 1894...	Rec. V, 861
Bul. 37 (n. s.), Nov., 1891 ..	Rec. III, 610	Bul. 67 (n. s.), Feb., 1894...	Rec. V, 986
Bul. 38 (n. s.), Jan., 1892 ..	Rec. III, 705	Bul. 68 (n. s.), Mar., 1894 ..	Rec. V, 996
Bul. 39 (n. s.), Jan., 1892 ..	Rec. III, 707	Eleventh An. Rpt., 1892. Rec. VI,	21, 23, 25, 45, 46, 50, 54, 55, 56, 59, 62, 65, 68, 69, 70, 77, 81, 83, 85, 87
Bul. 40 (n. s.), Mar., 1892 ...	Rec. IV, 55	Bul. 69 (n. s.), Mar., 1894 ...	Rec. VI, 53
Bul. 41 (n. s.), Apr., 1892. Rec. IV,	15, 55	Bul. 70 (n. s.), Apr., 1894 ..	Rec. VI, 339
Bul. 42 (n. s.), May, 1892 ..	Rec. IV, 133	Bul. 71 (n. s.), May, 1894 ..	Rec. VI, 340
Tenth An. Rpt., 1891.....	Rec. IV, 242, 245, 246, 250, 252, 253, 255, 262, 263, 268, 271, 272, 273, 274, 275	Bul. 72 (n. s.), June, 1894 ..	Rec. VI, 302

New York State Station—Continued.

	Volume and page.		Volume and page.
Bul. 73 (n. s.), July, 1894 ..	Rec. VI, 287	Bul. 108 (n. s.), Sept., 1896..	Rec. VIII, 766
Bul. 74 (n. s.), Sept., 1894 ..	Rec. VI, 739	Bul. 109 (n. s.), Sept., 1896..	Rec. VIII, 786
Bul. 75 (n. s.), Sept., 1894 ..	Rec. VI, 833	Fourteenth An. Rpt., 1895..	Rec. IX, 36, 37, 50, 52, 55, 60, 62, 69, 86, 91, 97
Bul. 76 (n. s.), Oct., 1894 ..	Rec. VI, 817	Bul. 110 (n. s.), Oct., 1896..	Rec. IX, 181
Twelfth An. Rpt., 1893 ...	Rec. VI, 966, 976, 978, 980, 984, 987, 993, 998, 1001, 1010, 1011, 1013, 1016, 1017, 1022, 1023, 1026, 1030	Bul. 111 (n. s.), Oct., 1896..	Rec. IX, 137
Bul. 77 (n. s.), Nov., 1894 ...	Rec. VII, 45	Bul. 112 (n. s.), Nov., 1896..	Rec. IX, 128
Bul. 78 (n. s.), Nov., 1894 ...	Rec. VII, 46	Bul. 113 (n. s.), Dec., 1896..	Rec. IX, 156
Bul. 79 (n. s.), Nov., 1894 ...	Rec. VII, 47	Bul. 114 (n. s.), Jan., 1897, Rec. IX, 138, 139	
Bul. 80 (n. s.), Nov., 1894..	Rec. VII, 31, 57	Bul. 115 (n. s.), Jan., 1897..	Rec. IX, 197
Bul. 81 (n. s.), Dec., 1894..	Rec. VII, 33, 38	Bul. 116, Jan., 1897.....	Rec. IX, 122
Bul. 82 (n. s.), Dec., 1894 ..	Rec. VII, 158	Bul. 117, Mar., 1897..	Rec. IX, 148, 149
Bul. 83 (n. s.), Dec., 1894 ..	Rec. VII, 144	Bul. 118, Mar., 1897	Rec. IX, 133
Bul. 84 (n. s.), Jan., 1895..	Rec. VII, 139	Bul. 119, Mar., 1897	Rec. IX, 248
Bul. 85 (n. s.), Jan., 1895..	Rec. VII, 111	Bul. 120, Mar., 1897	Rec. IX, 257
Bul. 86 (n. s.), Feb., 1895..	Rec. VII, 141	Bul. 121, Mar., 1897	Rec. IX, 262
Bul. 87 (n. s.), Mar., 1895..	Rec. VII, 147	Bul. 122, Apr., 1897	Rec. IX, 257
Bul. 88 (n. s.), Mar., 1895	Rec. VII, 300, 301	Bul. 123, Apr., 1897	Rec. IX, 765
Bul. 89 (n. s.), Apr., 1895 ..	Rec. VII, 423	Bul. 124, Apr., 1897	Rec. IX, 762
Bul. 90 (n. s.), May, 1895 ..	Rec. VII, 423	Bul. 125, July, 1897..	Rec. IX, 1051, 1058
Bul. 91 (n. s.), Aug., 1895 ..	Rec. VII, 502	Bul. 126, Nov., 1897	Rec. IX, 1076
Bul. 92 (n. s.), Oct., 1895 ..	Rec. VII, 572	Bul. 127, Nov., 1897	Rec. IX, 1052
Bul. 93 (n. s.), Oct., 1895 ..	Rec. VII, 761	Bul. 128, Nov., 1897	Rec. IX, 1052
Bul. 94 (n. s.), Oct., 1895 ..	Rec. VII, 853	Bul. 129, Nov., 1897	Rec. IX, 1042
Bul. 95 (n. s.), Nov., 1895 ..	Rec. VIII, 52	Bul. 130, Dec., 1897	Rec. IX, 1056
Bul. 96 (n. s.), Dec., 1895 ..	Rec. VIII, 38	Bul. 131, Dec., 1897	Rec. IX, 1060
Bul. 97 (n. s.), Dec., 1895..	Rec. VIII, 160	Bul. 132, Dec., 1897	Rec. IX, 1083
Bul. 98 (n. s.), Jan., 1896..	Rec. VIII, 130	Bul. 133, Dec., 1897	Rec. IX, 1061
Bul. 99 (n. s.), Jan., 1896..	Rec. VIII, 240	Bul. 134, Dec., 1897	Rec. X, 36
Bul. 100 (n. s.), Feb., 1896..	Rec. VIII, 238	Bul. 135, Dec., 1897	Rec. X, 145
Bul. 101 (n. s.), Feb., 1896..	Rec. VIII, 234	Fifteenth An. Rpt., 1896 ..	Rec. X, 225, 229, 235, 244, 246, 251, 254, 255, 260, 265, 268, 279, 282, 295, 298
Bul. 102 (n. s.), Mar., 1896..	Rec. VIII, 222	Bul. 136, Dec., 1897.....	Rec. X, 468
Bul. 103 (n. s.), May, 1896..	Rec. VIII, 212	Bul. 137, Dec., 1897	Rec. X, 431
Thirteenth An. Rpt., 1894..	Rec. VIII, 560, 567, 573, 582, 600, 601, 602, 608, 613, 619, 623, 629, 634, 635, 636	Bul. 138, Dec., 1897..	Rec. X, 452, 453, 454
Bul. 104 (n. s.), July, 1896..	Rec. VIII, 609	Bul. 139, Dec., 1897.....	Rec. X, 467
Bul. 105 (n. s.), Aug., 1896..	Rec. VIII, 825	Bul. 140, Dec., 1897....	Rec. X, 437, 452
Bul. 106 (n. s.), Aug., 1896..	Rec. VIII, 819	Bul. 141, Dec., 1897	Rec. X, 476
Bul. 107 (n. s.), Aug., 1896..	Rec. VIII, 766	Bul. 142, Dec., 1897	Rec. X, 498
		Bul. 143, Apr., 1898	Rec. X, 467
		Bul. 144, Sept., 1898.....	Rec. X, 869
		Bul. 145, Sept., 1898.....	Rec. X, 833
		Bul. 146, Nov., 1898	Rec. X, 957
		Bul. 147, Dec., 1898	Rec. X, 961
		Sixteenth An. Rpt., 1897 ..	Rec. X, 1020, 1031, 1097
		Bul. 148, Dec., 1898	Rec. X, 1033

New York State Station—Continued.

	Volume and page.		Volume and page.
Bul. 121, Appendix, Mar., 1899,		Bul. 164, Dec., 1899.....	Rec. XII, 55
	Rec. XI, 172	Bul. 165, Dec., 1899.....	Rec. XII, 67
Bul. 149, Dec., 1898	Rec. XI, 76	Bul. 166, Dec., 1899.....	Rec. XII, 169
Bul. 150, Dec., 1898	Rec. XI, 63	Bul. 167, Dec., 1899.....	Rec. XII, 154
Bul. 151, Dec., 1898	Rec. XI, 49	Bul. 168, Dec., 1899.....	Rec. XII, 198
Bul. 152, Dec., 1898	Rec. XI, 170	Bul. 169, Dec., 1899.....	Rec. XII, 240
Bul. 153, Dec., 1898	Rec. XI, 295	Bul. 170, Dec., 1899.....	Rec. XII, 271
Bul. 154, Dec., 1898	Rec. XI, 235	Bul. 171, Dec., 1899.....	Rec. XII, 276
Bul. 155, Dec., 1898	Rec. XI, 238	Bul. 172, Dec., 1899.....	Rec. XII, 287
Bul. 156, Dec., 1898	Rec. XI, 257	Bul. 173, Dec., 1899.....	Rec. XII, 226
Bul. 157, Dec., 1898	Rec. XI, 248	Bul. 174, Mar., 1900	Rec. XII, 273
Bul. 158, May, 1899	Rec. XI, 269	Bul. 175, Apr., 1900	Rec. XII, 358
Bul. 159, Oct., 1899.....	Rec. XI, 865	Bul. 176, Sept., 1900.....	Rec. XII, 877
Bul. 160, Oct., 1899.....	Rec. XI, 917	Eighteenth An. Rpt., 1899,	
Bul. 161, Nov., 1899	Rec. XI, 945		Rec. XII, 921, 996
Bul. 162, Nov., 1899	Rec. XI, 1058	Bul. 177, Nov., 1900	Rec. XII, 1026
Seventeenth An. Rpt., 1898,		Bul. 178, Nov., 1900	Rec. XII, 1083
	Rec. XII, 28, 36, 97	Bul. 179, Nov., 1900	Rec. XII, 1055
Bul. 163, Dec., 1899.....	Rec. XII, 59		

New York Cornell Station.

First An. Rpt., 1888.....	Bul. 2, I, 166	Bul. 31, Sept., 1891.....	Rec. III, 240
Bul. 5, Apr., 1889	Rec. I, 134	Bul. 32, Oct., 1891.....	Rec. III, 405
Bul. 6, June, 1889.....	Rec. I, 135	Bul. 33, Nov., 1891.....	Rec. III, 447
Bul. 7, July, 1889	Rec. I, 271	Bul. 34, Nov., 1891	Rec. III, 523
Bul. 8, Aug., 1889	Rec. I, 273	Bul. 35, Dec., 1891.....	Rec. III, 524
Bul. 9, Sept., 1889.....	Rec. I, 276	Bul. 36, Dec., 1891.....	Rec. III, 613
Bul. 10, Oct., 1889.....	Rec. I, 276	Bul. 37, Dec., 1891.....	Rec. III, 615
Bul. 11, Nov., 1889	Rec. I, 277	Bul. 38, June, 1892.....	Rec. IV, 162
Bul. 12, Dec., 1889.....	Rec. I, 278	Bul. 39, July, 1892. Rec. IV,	361, 362, 363
Bul. 13, Dec., 1889.....	Rec. I, 279	Bul. 40, July, 1892.....	Rec. IV, 338
Bul. 14, Dec., 1889.....	Rec. I, 281	Bul. 41, Aug., 1892.....	Rec. IV, 348
Bul. 15, Dec., 1889.....	Rec. I, 282	Bul. 42, Sept., 1892	Rec. IV, 349
Bul. 16, Mar., 1890	Rec. II, 116	Bul. 43, Sept., 1892	Rec. IV, 352
Bul. 17, May, 1890.....	Rec. II, 120	Fourth An. Rpt., 1891	Rec. IV, 370
Bul. 18, July, 1890.....	Rec. II, 244	Bul. 44, Oct., 1892	Rec. IV, 472
Bul. 19, Aug., 1890	Rec. II, 246	Bul. 45, Oct., 1892.....	Rec. IV, 547
Bul. 20, Sept., 1890.....	Rec. II, 284	Bul. 46, Nov., 1892.....	Rec. IV, 552
Bul. 21, Oct., 1890.....	Rec. II, 366	Bul. 47, Dec., 1892.....	Rec. IV, 572, 573
Bul. 22, Nov., 1890	Rec. II, 366	Bul. 48, Dec., 1892. Rec. IV,	561, 562, 563
Second An. Rpt., 1889.....	Rec. II, 419	Bul. 49, Dec., 1892	Rec. IV, 802,
Bul. 23, Dec., 1890.....	Rec. II, 419		811, 817, 821, 822, 825, 827,
Bul. 24, Dec., 1890.....	Rec. II, 421		828, 829, 830, 836, 839, 842
Third An. Rpt., 1890	Rec. II, 501	Bul. 50, Mar., 1893.....	Rec. IV, 930
Bul. 25, Dec., 1890.....	Rec. II, 503	Bul. 51, Apr., 1893.....	Rec. IV, 916
Bul. 26, Mar., 1891.....	Rec. II, 737	Bul. 52, May, 1893....	Rec. IV, 903, 936
Bul. 27, May, 1891.....	Rec. III, 89	Bul. 53, May, 1893.....	Rec. V, 55
Bul. 28, June, 1891.....	Rec. III, 91	Bul. 54, June, 1893.....	Rec. V, 204
Bul. 29, July, 1891.....	Rec. III, 230	Bul. 55, July, 1893..	Rec. V, 294, 296, 298
Bul. 30, Aug., 1891	Rec. III, 232	Bul. 56, Aug., 1893	Rec. V, 387

New York Cornell Station—Continued.

	Volume and page.		Volume and page.
Bul. 57, Sept., 1893	Rec. V, 394	Bul. 103, Oct., 1895	Rec. VII, 956
Bul. 58, Oct., 1893	Rec. V, 406	Bul. 104, Nov., 1895	Rec. VIII, 64
Bul. 59, Nov., 1893	Rec. V, 583	Bul. 105, Dec., 1895	Rec. VIII, 87
Bul. 60, Dec., 1893	Rec. V, 683	Bul. 106, Jan., 1896	Rec. VIII, 50
Bul. 61, Dec., 1893	Rec. V, 862, 867, 874, 879, 883	Bul. 107, Jan., 1896	Rec. VIII, 143
Bul. 62, Jan., 1894	Rec. V, 983	Bul. 108, Jan., 1896	Rec. VIII, 142
Bul. 63, Mar., 1894	Rec. V, 979	Bul. 109, Jan., 1896	Rec. VIII, 111
Bul. 64, Mar., 1894	Rec. VI, 62	Bul. 110, Jan., 1896	Rec. VIII, 135
Bul. 65, Apr., 1894	Rec. VI, 77	Bul. 111, Feb., 1896	Rec. VIII, 131
Bul. 66, May, 1894	Rec. VI, 245	Bul. 112, Feb., 1896	Rec. VIII, 130
Bul. 67, June, 1894	Rec. VI, 217	Bul. 113, Feb., 1896	Rec. VIII, 137
Fifth An. Rpt., 1892	Rec. VI, 418, 423, 424, 437, 443, 469, 483, 485, 486	Bul. 114, Feb., 1896	Rec. VIII, 149
Bul. 68, Aug., 1894	Rec. VI, 425	Bul. 115, Feb., 1896	Rec. VIII, 128
Bul. 69, Aug., 1894	Rec. VI, 420	Bul. 116, May, 1896	Rec. VIII, 226
Bul. 70, Aug., 1894	Rec. VI, 421	Seventh An. Rpt., 1894 ..	Rec. VIII, 307, 313, 314, 318, 320, 335, 347, 353
Bul. 71, Aug., 1894	Rec. VI, 420	Bul. 117, May, 1896	Rec. VIII, 311
Bul. 72, Sept., 1894	Rec. VI, 546	Bul. 118, July, 1896	Rec. VIII, 421
Bul. 73, Sept., 1894	Rec. VI, 554	Bul. 119, Aug., 1896	Rec. VIII, 476
Bul. 74, Oct., 1894	Rec. VI, 545	Bul. 120, Aug., 1896	Rec. VIII, 477
Sixth An. Rpt., 1893	Rec. VI, 630, 637, 638, 647, 653, 654, 666, 678	Bul. 121, Sept., 1896	Rec. VIII, 495
Bul. 75, Oct., 1894	Rec. VI, 641	Bul. 122, Dec., 1896	Rec. VIII, 790
Bul. 76, Nov., 1894	Rec. VI, 732	Bul. 123, Dec., 1896	Rec. VIII, 802
Bul. 77, Nov., 1894	Rec. VI, 724	Bul. 124, Jan., 1897	Rec. IX, 367
Bul. 78, Nov., 1894	Rec. VI, 911	Bul. 125, Feb., 1897	Rec. IX, 359
Bul. 79, Dec., 1894	Rec. VI, 901, 910	Bul. 126, Feb., 1897	Rec. IX, 363
Bul. 80, Dec., 1894	Rec. VI, 899	Bul. 127, Feb., 1897	Rec. IX, 356
Bul. 81, Dec., 1894	Rec. VI, 908	Bul. 128, Feb., 1897	Rec. IX, 356
Bul. 82, Dec., 1894	Rec. VI, 1023	Bul. 129, Feb., 1897	Rec. IX, 339
Bul. 83, Dec., 1894	Rec. VI, 1004	Bul. 130, Mar., 1897	Rec. IX, 343
Bul. 84, Jan., 1895	Rec. VI, 988	Bul. 131, Mar., 1897	Rec. IX, 351
Bul. 85, Mar., 1895	Rec. VII, 69	Bul. 132, Mar., 1897 ..	Rec. IX, 350, 358
Bul. 86, Mar., 1895	Rec. VII, 137	Bul. 133, Apr., 1897	Rec. IX, 365
Bul. 87, Apr., 1895	Rec. VII, 210	Bul. 134, Apr., 1897	Rec. IX, 353
Bul. 88, Apr., 1895	Rec. VII, 239	Bul. 135, May, 1897	Rec. IX, 341
Bul. 89, May, 1895	Rec. VII, 241	Bul. 136, May, 1897	Rec. IX, 356
Bul. 90, Apr., 1895	Rec. VII, 215	Eighth An. Rpt., 1895	Rec. IX, 449, 450, 451, 456, 457, 458, 470, 471, 481, 494, 498
Bul. 91, Apr., 1895	Rec. VII, 216	Bul. 137, May, 1897	Rec. IX, 699
Bul. 92, May, 1895	Rec. VII, 236	Bul. 138, Sept., 1897	Rec. IX, 646
Bul. 93, May, 1895	Rec. VII, 227	Ninth An. Rpt., 1896	Rec. IX, 932, 949, 950, 951, 960, 961, 967, 981, 998
Bul. 94, May, 1895	Rec. VII, 220	Tenth An. Rpt., 1897	Rec. IX, 939, 944, 950, 951, 960, 964, 967, 998, 999
Bul. 95, June, 1895	Rec. VII, 402	Bul. 139, Oct., 1897	Rec. IX, 1053
Bul. 96, June, 1895	Rec. VII, 400	Bul. 140, Nov., 1897	Rec. IX, 1044, 1060, 1072
Bul. 97, June, 1895	Rec. VII, 412	Bul. 141, Nov., 1897	Rec. IX, 1090
Bul. 98, July, 1895	Rec. VII, 398	Bul. 142, Jan., 1898	Rec. X, 460
Bul. 99, Aug., 1895	Rec. VII, 501	Bul. 143, Feb., 1898	Rec. X, 143
Bul. 100, Sept., 1895	Rec. VII, 865		
Bul. 101, Sept., 1895	Rec. VII, 879		
Bul. 102, Oct., 1895	Rec. VII, 864		

New York Cornell Station—Continued.

	Volume and page.		Volume and page.
Bul. 144, Jan., 1898.....	Rec. X, 455, 468	Bul. 165, Mar., 1899.....	Rec. XI, 282
Bul. 145, Feb., 1898.....	Rec. X, 450	Bul. 166, Mar., 1899.....	Rec. XI, 237
Bul. 146, Feb., 1898.....	Rec. X, 498	Bul. 167, Mar., 1899.....	Rec. XI, 294
Bul. 147, Apr., 1898.....	Rec. X, 438	Bul. 168, May, 1899.....	Rec. XI, 322
Bul. 148, May, 1898.....	Rec. X, 565	Bul. 169, May, 1899.....	Rec. XI, 384
Bul. 149, June, 1898.....	Rec. X, 568	Bul. 170, May, 1899.....	Rec. XI, 368
Bul. 150, July, 1898.....	Rec. X, 596	Bul. 171, July, 1899.....	Rec. XI, 389
Bul. 151, Aug., 1898.....	Rec. X, 591	Bul. 172, Sept., 1899.....	Rec. XI, 866
Eleventh An. Rpt., 1898....	Rec. X, 635,	Twelfth An. Rpt., 1899....	Rec. XI, 898
636, 639, 640, 653, 660, 661, 694, 697, 698		Bul. 173, Nov., 1899.....	Rec. XI, 1081
Bul. 152, Oct., 1898.....	Rec. X, 885	Bul. 174, Nov., 1899.....	Rec. XI, 1022
Bul. 153, Oct., 1898.....	Rec. X, 959	Bul. 175, Nov., 1899.....	Rec. XI, 1045
Bul. 154, Nov. 1898.....	Rec. X, 992	Bul. 176, Dec., 1899.....	Rec. XII, 63
Bul. 155, Dec., 1898.....	Rec. X, 975	Bul. 177, Jan., 1900.....	Rec. XII, 163
Bul. 156, Dec., 1898.....	Rec. X, 950	Bul. 178, Jan., 1900.....	Rec. XII, 184
Bul. 157, Dec., 1898.....	Rec. X, 1073	Bul. 179, Feb., 1900.....	Rec. XII, 125
Bul. 158, Jan., 1899.....	Rec. X, 1093	Bul. 180, Mar., 1900.....	Rec. XII, 259
Bul. 159, Jan., 1899.....	Rec. X, 1098	Bul. 181, Mar., 1900.....	Rec. XII, 237
Bul. 160, Jan., 1899.....	Rec. XI, 50	Bul. 182, Apr., 1900.....	Rec. XII, 335
Bul. 161, Jan., 1899.....	Rec. XI, 49	Thirteenth An. Rpt., 1900.	Rec. XII, 797
Bul. 162, Feb., 1899.....	Rec. XI, 81	Bul. 183, Sept., 1900.....	Rec. XII, 878
Bul. 163, Feb., 1899.....	Rec. XI, 162	Bul. 184, Nov., 1900.....	Rec. XII, 974
Bul. 164, Feb., 1899.....	Rec. XI, 164	Bul. 185, Nov., 1900.....	Rec. XII, 973

North Carolina Station.

An. Rpt., 1888.....	Bul. 2, I, 172	An. Rpt., 1889.....	Rec. II, 659
Bul. 61½, Feb., 1889.....	Rec. I, 136	Bul. 74, Dec., 1890.....	Rec. II, 659
Bul. 62, Feb., 1889.....	Rec. I, 136	Bul. 74a, Dec., 1890.....	Rec. II, 602
Bul. 62½, Mar., 1889.....	Rec. I, 137	Bul. 74b, Jan., 1891.....	Rec. II, 660
Bul. 63, June, 1889.....	Rec. I, 137	Fourth An. Rpt. of State Weather	
Bul. 64, July, 1889.....	Rec. I, 283	Service, 1890.....	Rec. III, 92
Bul. 65, Aug.-Sept., 1889....	Rec. I, 284	Bul. 75c, Apr., 1891.....	Rec. III, 172
Bul. 66, Sept., 1889.....	Rec. I, 285	Bul. 76, Mar., 1891.....	Rec. III, 172
Bul. 67, Oct., 1889.....	Rec. I, 286	Bul. 77, May, 1891.....	Rec. III, 172
Bul. 68, Nov., 1889.....	Rec. I, 286	Bul. 77b, July, 1891.....	Rec. III, 173
Bul. 68a, Nov., 1889.....	Rec. II, 288	Bul. 78, July, 1891.....	Rec. III, 175
Bul. 68b, Dec., 1889.....	Rec. II, 288	Bul. 78a, July, 1891.....	Rec. III, 241
Bul. 68c, Jan., 1890.....	Rec. II, 288	Bul. 79, July, 1891.....	Rec. III, 314
Bul. 69, Feb. 1890.....	Rec. II, 25	Bul. 79a, Aug., 1891.....	Rec. III, 314
Bul. 69a, Feb., 1890.....	Rec. II, 288	Bul. 80, Oct., 1891.....	Rec. III, 452
Bul. 69b, Mar., 1890.....	Rec. II, 288	Bul. 80a, Oct., 1891.....	Rec. III, 710
Bul. 70, Apr., 1890.....	Rec. II, 164	Bul. 80b, Sept., 1891.....	Rec. III, 411
Bul. 70a, June, 1890.....	Rec. II, 288	Bul. 80c, Oct., 1891.....	Rec. III, 452
Bul. 71, May, 1890.....	Rec. II, 286	Bul. 80d, Oct., 1891.....	Rec. III, 411
Bul. 72, June, 1890.....	Rec. II, 372	Thirteenth and Fourteenth An.	
Bul. 72a, July, 1890.....	Rec. II, 288	Rpts., 1890-91.....	Rec. III, 708
Bul. 72b, July, 1890.....	Rec. II, 288	Bul. 80e, Nov., 1891.....	Rec. III, 712
Bul. 72c, Sept., 1890.....	Rec. II, 288	Bul. 81, Dec., 1891.....	Rec. III, 710
Bul. 73, Oct., 1890.....	Rec. II, 600	Bul. 81a, Dec., 1891.....	Rec. III, 712
Bul. 73a, Oct., 1890.....	Rec. II, 423	Bul. 82, Jan., 1892.....	Rec. III, 712
Bul. 73b, Dec., 1890.....	Rec. II, 510	Bul. 83, Feb., 1892.....	Rec. III, 803

North Carolina Station—Continued.

	Volume and page.		Volume and page.
Bul. 83a, Feb., 1892	Rec. III, 803	Bul. 98, Mar., 1894..	Rec. VI, 34, 58, 65
Bul. 83d, Mar., 1892.....	Rec. III, 803	Bul. 99, Apr., 1894.....	Rec. VI, 245
Bul. 84, Apr., 1892.....	• Rec. IV, 55, 58	Bul. 100, Mar., 1894	Rec. VI, 236
Bul. 85, Apr., 1892.....	Rec. IV, 29	Bul. 101, Aug., 1894.....	Rec. VI, 483
Bul. 85a, Apr., 1892.....	Rec. IV, 16	Bul. 102, Aug., 1894.....	Rec. VI, 483
Bul. 86, May, 1892.....	Rec. IV, 32	Bul. 103, Aug., 1894..	Rec. VI, 569, 582
Bul. 86a, May, 1892.....	Rec. IV, 119	Bul. 104, Aug., 1894.....	Rec. VI, 527
Bul. 86c, June, 1892	Rec. IV, 243	Bul. 105, Sept., 1894..	Rec. VI, 547, 561
Bul. 86d, July, 1892.....	Rec. IV, 243	Bul. 106, Sept., 1894	Rec. VI, 573
Fifth An. Rpt. of State Weather		Bul. 107, Sept., 1894	Rec. VI, 547
Service, 1891	Rec. IV, 462	Bul. 108, Sept., 1894	Rec. VI, 731
Bul. 87, Sept., 1892	Rec. IV, 754	Bul. 109, Oct., 1894.....	Rec. VI, 921
Buls. 87a-87f, Aug.-Dec., 1892,		Spec. Bul. 21, May, 1894 ...	Rec. VI, 27
	Rec. IV, 709, 736	Spec. Bul. 22, Feb., 1895..	Rec. VI, 882
Buls. 88-88d, Jan.-Mar., 1893,		Spec. Bul. 23, Mar., 1895..	Rec. VI, 882
	Rec. IV, 709, 715	Spec. Bul. 24, Mar., 1895..	Rec. VI, 980
Bul. 89, Mar., 1893. Rec. IV, 716, 718, 729		Spec. Bul. 25, Mar., 1895..	Rec. VI, 980
Bul. 89a, Mar., 1893	Rec. V, 290	State Weather Service Bul. 54,	
Bul. 89b, Mar., 1893	Rec. IV, 709	Mar., 1894	Rec. VI, 21
Bul. 90, Apr., 1893.....	Rec. IV, 935	State Weather Service Buls. 55 and	
Bul. 90a, Apr., 1893.....	Rec. IV, 819	56, Apr. and May, 1894..	Rec. VI, 117
Bul. 90b, Apr., 1893.....	Rec. V, 64	State Weather Service Bul. 57,	
Bul. 90c, Apr., 1893.....	Rec. V, 290	June, 1894	Rec. VI, 282
Bul. 90d, Apr., 1893	Rec. IV, 803	Seventh An. Rpt. of State Weather	
Bul. 91, Apr., 1893.....	Rec. IV, 912	Service, 1893	Rec. VI, 390
Bul. 91b, June, 1893	Rec. V, 290	State Weather Service Buls. 58 and	
Bul. 91c, June, 1893.....	Rec. V, 282	59, July and Aug., 1894..	Rec. VI, 391
Bul. 91d, July, 1893. Rec. V, 278, 288, 289		State Weather Service Buls. 60 and	
Sixth An. Rpt. of State Weather		61, Sept. and Oct., 1894..	Rec. VI, 621
Service, 1892	Rec. V, 281	State Weather Service Bul. 62,	
Bul. 91e, July, 1893.....	Rec. V, 282	Nov., 1894	Rec. VI, 702
Fifteenth An. Rpt., 1892 ...	Rec. V, 325	State Weather Service Bul. 63,	
Bul. 92, Aug., 1893. Rec. V, 496, 497, 498		Dec., 1894.....	Rec. VI, 879
Buls. 92a and 92b, Aug. and Sept.,		State Weather Service Buls. 64 and	
1893	Rec. V, 282	65, Jan. and Feb., 1895..	Rec. VI, 976
Bul. 93, Oct., 1893.....	Rec. V, 686	Bul. 110, Nov., 1894.....	Rec. VII, 103
Bul. 93a, Oct., 1893	Rec. V, 483	Bul. 111, Jan., 1895.....	Rec. VII, 111
Buls. 93b and 93c, Nov. and Dec.,		Sixteenth An. Rpt., 1893..	Rec. VII, 165
1893	Rec. V, 677	Eighth Biennial Rpt., 1893-4..	Rec. VII,
Bul. 93d, Dec., 1893.....	Rec. V, 857		258
Bul. 94, Jan., 1894.....	Rec. V, 873	Seventeenth An. Rpt., 1894..	Rec. VII,
Bul. 95, Jan., 1894.....	Rec. V, 861		340
Bul. 96, Jan., 1894.....	Rec. V, 1085	Bul. 112, Jan., 1895.....	Rec. VII, 404
Bul. 97, Jan., 1894.....	Rec. V, 1081	Bul. 113, June, 1895.....	Rec. VII, 422,
Spec. Bul. 16, Feb., 1894... Rec. V, 976			423, 429
Spec. Bul. 17, Mar., 1894... Rec. V, 976		Bul. 114, June, 1895.....	Rec. VII, 426
Spec. Bul. 18, Mar., 1894... Rec. V, 976		Bul. 115, June, 1895.....	Rec. VII, 581
Spec. Bul. 19, Apr., 1894.. Rec. V, 1070		Bul. 116, June, 1895.. Rec. VII, 605, 629	
Spec. Bul. 20, Apr., 1894.. Rec. V, 1070		Bul. 117, June, 1895.....	Rec. VII, 617
State Weather Service Buls. 52 and		Bul. 118, July, 1895.....	Rec. VII, 702
53, Jan. and Feb., 1894.. Rec. V, 1070		Bul. 119, Aug., 1895.. Rec. VII, 741, 742	

North Carolina Station—Continued.

	Volume and page.		Volume and page.
Spec. Bul. 26, Apr., 1895..	Rec. VII, 112	Bul. 137, Jan., 1897.....	Rec. IX, 123
Spec. Bul. 27, Apr., 1895..	Rec. VII, 112	Bul. 138, Jan., 1897.....	Rec. IX, 154
Spec. Bul. 28, May, 1895..	Rec. VII, 300	Bul. 139, Feb., 1897.....	Rec. IX, 339
Spec. Bul. 29, May, 1895..	Rec. VII, 294	Ninth Biennial Rpt., 1895 and 1896,	
Spec. Bul. 30, May, 1895..	Rec. VII, 294		Rec. IX, 339, 397
Spec. Bul. 31, Feb., 1896..	Rec. VII, 854	Nineteenth An. Rpt., 1896.	Rec. IX, 336,
Spec. Bul. 32, Feb., 1896..	Rec. VII, 854		397
Spec. Bul. 33, Mar., 1896..	Rec. VII, 876	Bul. 140, May, 1897.....	Rec. IX, 416
Spec. Bul. 34, Mar., 1896..	Rec. VII, 854	Bul. 141, July, 1897.....	Rec. IX, 464
Spec. Bul. 35, Mar., 1896..	Rec. VII, 854	Bul. 142, Aug., 1897.....	Rec. IX, 597
Spec. Bul. 36, Apr., 1896..	Rec. VII, 854	Bul. 143, Sept., 1897.....	Rec. IX, 978,
State Weather Service Bul. 66,			984, 985, 998
Mar., 1895.....	Rec. VII, 98	Spec. Bul. 46, May, 1897..	Rec. IX, 338
Eighth An. Rpt. of State Weather		Spec. Bul. 47, June, 1897..	Rec. IX, 338
Service, 1894.....	Rec. VII, 285	Bul. 144, Oct., 1897.....	Rec. X, 324
State Weather Service Buls. 67-71,		Bul. 145, Dec., 1897.....	Rec. X, 348
Apr.-Aug., 1895.....	Rec. VII, 287	Bul. 146, Dec., 1897....	Rec. X, 348, 349
State Weather Service Buls. 72 and		Bul. 147, June, 1898.....	Rec. X, 354
73, Sept. and Oct., 1895..	Rec. VII, 475	Bul. 148, June, 1898...	Rec. X, 667, 690
State Weather Service Buls. 74-77,		Bul. 149, June, 1898.....	Rec. X, 639
Nov., 1895-Feb., 1896..	Rec. VII, 845	Bul. 150, June 1898.....	Rec. X, 612
Bul. 120, Sept., 1895..	Rec. VIII, 50, 68	Twentieth and Twenty-first An.	
Bul. 121, Oct., 1895.....	Rec. VIII, 91	Rpts., 1897 and 1898 (half year),	
Bul. 122, Nov., 1895.....	Rec. VIII, 221		Rec. X, 698
Bul. 123, Dec., 1895.....	Rec. VIII, 354	Bul. 151, June, 1898.....	Rec. X, 732
Bul. 124, Jan., 1896.....	Rec. VIII, 300	Bul. 152, Sept., 1898.....	Rec. X, 1087
Bul. 125, Jan., 1896..	Rec. VIII, 302, 307	Bul. 153, Dec., 1898.....	Rec. X, 1077
Bul. 126, Mar., 1896.....	Rec. VIII, 521	Bul. 154, Dec., 1898.....	Rec. X, 1089
Bul. 127, May, 1896.....	Rec. VIII, 525	Spec. Bul. 48.....	Rec. X, 698
Bul. 128, July, 1896.....	Rec. VIII, 507	Spec. Bul. 49, Mar., 1898...	Rec. X, 636
Bul. 129, July, 1896.....	Rec. VIII, 639	Spec. Bul. 50, Oct., 1898...	Rec. X, 698
Bul. 130, Sept., 1896.....	Rec. VIII, 720	Bul. 155, Dec., 1898.....	Rec. XI, 278
Eighteenth An. Rpt., 1895..	Rec. VIII,	Bul. 156, Dec., 1898.....	Rec. XI, 278
	879, 937	Bul. 157, Dec., 1898.....	Rec. XI, 278
Spec. Bul. 37, Apr., 1896..	Rec. VIII, 40	Bul. 158, Dec., 1898.....	Rec. XI, 229
Spec. Bul. 38, May, 1896..	Rec. VIII, 40	Bul. 159, Dec., 1898.....	Rec. XI, 341
Spec. Bul. 39, May, 1896..	Rec. VIII, 300	Bul. 160, Jan., 1899.....	Rec. XI, 276
Spec. Buls. 40-45, Feb.-May, 1897,		Bul. 161, Jan., 1899.....	Rec. XI, 328
	Rec. VIII, 970	Bul. 162, Mar., 1899.....	Rec. XI, 497
Ninth An. Rpt. of State Weather		Bul. 163, May, 1899.....	Rec. XI, 483
Service, 1895.....	Rec. VIII, 31	Bul. 164, May, 1899.....	Rec. XI, 909
State Weather Service Buls. 78-80,		Bul. 165, June, 1899.....	Rec. XI, 960
Mar.-May, 1896.....	Rec. VIII, 34	Bul. 166, June, 1899.....	Rec. XI, 984
State Weather Service Bul. 81,		Bul. 167, June, 1899.....	Rec. XI, 1073
June, 1896.....	Rec. VIII, 208	Bul. 168, June, 1899.....	Rec. XI, 1032
State Weather Service Buls. 82 and		Bul. 169, June, 1899.....	Rec. XI, 1078
83, July and Aug., 1896.	Rec. VIII, 293	Tenth Biennial Rpt., 1897-98..	Rec. XI,
Bul. 131, Sept., 1896.....	Rec. IX, 96		1095
Bul. 132, Oct., 1896.....	Rec. IX, 50, 74	Twenty-second An. Rpt., 1899..	Rec. XI,
Bul. 133, Dec., 1896.....	Rec. IX, 41		1095
Bul. 136, Jan., 1897.....	Rec. IX, 123	Spec. Bul. 51, Dec., 1898..	Rec. XI, 909

North Carolina Station—Continued.

	Volume and page.		Volume and page.
Spec. Bul. 52, Jan., 1899 ..	Rec. XI, 997	Bul. 172, May, 1900..	Rec. XII, 611, 667
Spec. Bul. 53, Jan., 1899 ..	Rec. XI, 970	Bul. 173, June, 1900	Rec. XII, 841
Bul. 170, Mar., 1900	Rec. XII, 444	Bul. 174, June, 1900	Rec. XII, 819
Bul. 171, May, 1900.....	Rec. XII, 538	Bul. 175, Aug., 1900	Rec. XII, 827

North Dakota Station.

Bul. 1, Jan., 1891.....	Rec. II, 740	Bul. 25, Sept., 1896	Rec. VIII, 604
Bul. 2, Apr., 1891	Rec. II, 740	Bul. 26, Nov., 1896	Rec. IX, 174
First An. Rpt., 1890	Rec. II, 740	Bul. 27, Mar., 1897	Rec. IX, 143
Bul. 3, Oct., 1891.....	Rec. III, 619	Bul. 28, June, 1897 ...	Rec. IX, 682, 693
Bul. 4, Dec., 1891	Rec. III, 619	Seventh An. Rpt., 1896 ...	Rec. IX, 726, 731, 735, 738, 741, 749, 775, 784, 785, 798
Bul. 5, Feb., 1892	Rec. III, 804	Bul. 29, Sept., 1897	Rec. IX, 931
Second An. Rpt., 1891	Rec. III, 886	Bul. 30, Dec., 1897.....	Rec. IX, 942
Bul. 6, June, 1892	Rec. IV, 167	Bul. 31, Mar., 1898	Rec. X, 97
Bul. 7, Sept., 1892	Rec. IV, 749	Bul. 32, Apr., 1898.....	Rec. X, 129, 171, 181, 194
Bul. 8, Dec., 1892.....	Rec. IV, 914	Eighth An. Rpt., 1897	Rec. X, 315, 320, 340, 353, 361, 388, 390, 395, 397
Bul. 9, Mar., 1893	Rec. IV, 914, 926	Bul. 33, Aug., 1898	Rec. X, 671
Bul. 10, May, 1893	Rec. V, 161, 162, 176, 178	Bul. 34, Dec., 1898.....	Rec. XI, 264
Third An. Rpt., 1892	Rec. V, 216	Bul. 35, Jan., 1899	Rec. XI, 214, 218, 224, 241, 279, 287
Bul. 11, Nov., 1893	Rec. V, 678	Bul. 36, Jan., 1899....	Rec. XI, 215, 226
Bul. 12, Jan., 1894.....	Rec. V, 871	Bul. 37, Mar., 1899	Rec. XI, 361
Bul. 13, Apr., 1894....	Rec. VI, 139, 165	Bul. 38, Apr., 1899 ...	Rec. XI, 325, 338
Bul. 14, June, 1895	Rec. VI, 472	Bul. 39, Apr., 1899	Rec. XI, 331
Fourth An. Rpt., 1893....	Rec. VI, 513, 515, 582	Bul. 40, Apr., 1899	Rec. XI, 339
Bul. 15, Sept., 1894	Rec. VI, 752	Ninth An. Rpt., 1898.....	Rec. XI, 812, 817, 821, 823, 889, 898
Bul. 16, Dec., 1894. Rec.	VII, 56, 62, 64, 71	Bul. 41, Sept., 1899	Rec. XII, 55
Bul. 17, Mar., 1895	Rec. VII, 30, 36	Bul. 42, Dec., 1899.....	Rec. XII, 51
Bul. 18, Mar., 1895	Rec. VII, 33	Tenth An. Rpt., 1899 ...	Rec. XII, 214, 215, 220, 222, 233, 234, 235, 236, 245, 248, 255, 273, 297
Bul. 19, Apr., 1895.....	Rec. VII, 39	Bul. 43, Mar., 1900	Rec. XII, 516
Fifth An. Rpt., 1894	Rec. VII, 258	Bul. 44, June, 1900 ..	Rec. XII, 780, 791
Bul. 20, Sept., 1895	Rec. VII, 801	Bul. 45, Sept., 1900.....	Rec. XII, 978
Bul. 21, Dec., 1895.....	Rec. VIII, 169		
Bul. 22, Feb., 1896.....	Rec. VIII, 175		
Bul. 23, Mar., 1896.....	Rec. VIII, 214		
Sixth An. Rpt., 1895....	Rec. VIII, 267		
Bul. 24, June, 1896	Rec. VIII, 572		

Ohio Station.

Seventh An. Rpt., 1888....	Bul. 2, II, 108	Bul. Vol. II, 7, Nov., 1889...	Rec. I, 293
Bul. Vol. II, 1, Mar., 1889...	Rec. I, 138	Bul. Vol. II, 8, Dec., 1889...	Rec. I, 294
Bul. Vol. II, 2, Apr., 1889...	Rec. I, 139	Bul. Vol. III, 1, Jan., 1890...	Rec. II, 26
Bul. Vol. II, 2, May, 1889...	Rec. I, 139	Bul. Vol. III, 2, Feb., 1890...	Rec. II, 121
Bul. Vol. II, 3, June, 1889...	Rec. I, 139	Bul. Vol. III, 3, Mar., 1890 ..	Rec. II, 165
Bul. Vol. II, 4, July, 1889...	Rec. I, 287	Bul. Vol. III, 4, Apr., 1890...	Rec. II, 168
Bul. Vol. II, 5, Aug., 1889...	Rec. I, 287	Bul. Vol. III, 5, June, 1890..	Rec. II, 247
Bul. Vol. II, 6, Sept., 1889...	Rec. I, 290	Bul. Vol. III, 6, July, 1890..	Rec. II, 249
Bul. Vol. I, 1 (tech. ser.), Oct., 1889.....	Rec. I, 292	Bul. Vol. I, 2 (tech. ser.), May, 1890	Rec. II, 253

Ohio Station—Continued.

	Volume and page.		Volume and page.
Bul. Vol. III, 7, Aug., 1890..	Rec. II, 288	Fourteenth An. Rpt., 1895,	
Bul. Vol. III, 8, Sept., 1890,		Rec. VIII, 317, 353	
	Rec. II, 290, 603	Bul. 67, Feb., 1896.....	Rec. VIII, 487
Bul. Vol. III, 9, Oct., 1890..	Rec. II, 604	Bul. 68, Feb., 1896.....	Rec. VIII, 505
Bul. Vol. III, 10, Nov., 1890.	Rec. II, 606	Bul. 69, Mar., 1896.....	Rec. VIII, 500
Bul. Vol. III, 11, Dec., 1890.	Rec. III, 175	Bul. 70, Apr., 1896.....	Rec. VIII, 587
Bul. Vol. IV, 1, Jan., 1891 ..	Rec. III, 94	Bul. 71, Apr., 1896..	Rec. VIII, 576, 584
Bul. Vol. IV, 2, Feb., 1891 ..	Rec. III, 96	Bul. 72, Aug., 1896..	Rec. VIII, 607, 613
Bul. Vol. IV, 3, Aug., 1891.	Rec. III, 241	Bul. Vol. I, 4 (tech. ser.), July,	
Bul. Vol. IV, 4, Aug., 1891.	Rec. III, 243	1896	Rec. VIII, 753
Bul. Vol. IV, 5, Sept., 1891.	Rec. III, 315	Bul. 73, Dec., 1896.....	Rec. VIII, 989
Bul. Vol. IV, 6, Oct., 1891 .	Rec. III, 411	Bul. 74, Dec., 1896.....	Rec. VIII, 962
Bul. Vol. IV, 7, Nov., 1891.	Rec. III, 412	Bul. 75, Jan., 1897.....	Rec. VIII, 976
Bul. Vol. IV, 8, Nov., 1891.	Rec. III, 526	Fifteenth An. Rpt., 1896 .	Rec. VIII, 976
Bul. Vol. IV, 9, Dec., 1891.	Rec. III, 620		996, 998, 1033
Bul. Vol. IV, 10, Dec., 1891.	Rec. III, 804	Bul. 76, Feb., 1897.....	Rec. IX, 42
Bul. Vol. V, 1, Jan., 1892..	Rec. III, 805	Bul. 77, Feb., 1897.....	Rec. IX, 66
Bul. Vol. V, 2, Feb., 1892..	Rec. III, 886	Bul. 78, Apr., 1897	Rec. IX, 37, 60
Bul. Vol. V, 3, Mar., 1892..	Rec. III, 887	Bul. 79, Apr., 1897.....	Rec. IX, 762
Bul. Vol. V, 4, Apr., 1892..	Rec. III, 889	Bul. 80, July, 1897.....	Rec. IX, 747
Bul. 42, Aug., 1892.....	Rec. IV, 343	Bul. 81, July, 1897.....	Rec. IX, 1066
Bul. 43, Sept., 1892.	Rec. IV, 411, 412, 418	Bul. 82, Aug., 1897.....	Rec. IX, 1046
Bul. 44, Sept., 1892.....	Rec. IV, 414	Bul. 83, Sept., 1897.....	Rec. IX, 1054
Bul. 45, Dec., 1892.....	Rec. IV, 838	Bul. 84, July, 1897 (Sixteenth An.	
Bul. 46, Dec., 1892.....	Rec. IV, 839	Rpt., 1897).....	Rec. X, 96
Bul. 47, Dec., 1892 (An. Rpt., 1892),		Bul. 85, Sept., 1897.....	Rec. X, 150
	Rec. IV, 901, 949	Bul. 86, Oct., 1897.....	Rec. X, 374
Bul. 48, Feb., 1893.....	Rec. IV, 927	Bul. 87, Nov., 1897.....	Rec. X, 372
Bul. 49, May, 1893.....	Rec. V, 165	Bul. 88, Dec., 1897.....	Rec. X, 350
Bul. 50, Nov., 1893	Rec. V, 887, 890	Bul. 89, Dec., 1897.....	Rec. X, 361
Bul. Vol. I, 3 (tech. ser.), Apr.,		Bul. 90, Jan., 1898.....	Rec. X, 346
1893	Rec. V, 279, 280, 304, 311, 312	Bul. 91, Jan., 1898.....	Rec. X, 594
Bul. 51, Dec., 1893.....	Rec. VI, 150	Bul. 92, Mar., 1898	Rec. X, 557
Bul. 52, Dec., 1893.....	Rec. VI, 116	Bul. 93, Apr., 1898	Rec. X, 532
Twelfth An. Rpt., 1893....	Rec. VI, 172	Bul. 94, June, 1898	Rec. X, 949
Bul. 53, Mar., 1894....	Rec. VI, 201, 210	Bul. 95, June, 1898 (Seventeenth	
Bul. 54, Oct., 1894.....	Rec. VI, 635	An. Rpt., 1898)....	Rec. X, 1019, 1098
Bul. 55, Oct., 1894.....	Rec. VII, 37	Bul. 96, Sept., 1898	Rec. XI, 62
Bul. 56, Dec., 1894.....	Rec. VII, 42	Bul. 97, Dec., 1898	Rec. XI, 160, 162
Bul. 57, Dec., 1894.....	Rec. VII, 27	Bul. 98, Jan., 1899	Rec. XI, 150
Thirteenth An. Rpt., 1894... Rec.		Bul. 99, Jan., 1899	Rec. XI, 142
	VII, 657, 682, 686, 697, 720	Bul. 100, Feb., 1899	Rec. XI, 228
Bul. 58, Dec., 1894.....	Rec. VII, 660	Bul. 101, Mar., 1899... Rec. XI, 234, 257	
Bul. 59, May, 1895.....	Rec. VII, 690	Bul. 102, Mar., 1899	Rec. XI, 274
Bul. 60, Aug., 1895.....	Rec. VIII, 75	Bul. 103, Mar., 1899.....	Rec. XI, 267
Bul. 61, Sept., 1895.....	Rec. VIII, 47	Bul. 104, Mar., 1899.....	Rec. XI, 357
Bul. 62, Oct., 1895	Rec. VIII, 67	Bul. 105, Apr., 1899	Rec. XI, 356
Bul. 63, Nov., 1895	Rec. VIII, 53	Bul. 106, Apr., 1899	Rec. XI, 472
Bul. 64, Dec., 1895.....	Rec. VIII, 238	Bul. 107, May, 1899	Rec. XI, 476
Bul. 65, Dec., 1895..	Rec. VIII, 218, 219	Bul. 108, June, 1899.....	Rec. XI, 691
Bul. 66, Dec., 1895.....	Rec. VIII, 293	Bul. 109, July, 1899	Rec. XII, 120

Ohio Station—Continued.

	Volume and page.		Volume and page.
Bul. 110, Dec., 1899	Rec. XII, 127	Bul. 117, Apr., 1900	Rec. XII, 688
Eighteenth An. Rpt., 1899	Rec. XII, 198	Bul. 118, June, 1900.....	Rec. XII, 848
Bul. 111, Dec., 1899	Rec. XII, 359	Bul. 119, June, 1900.....	Rec. XII, 862
Bul. 112, Dec., 1899	Rec. XII, 576	Bul. 120, June, 1900..	Rec. XII, 919, 997
Bul. 113, Dec., 1899	Rec. XII, 557	Spec. Bul. 4, Apr., 1900 ...	Rec. XII, 349
Bul. 114, Jan., 1900	Rec. XII, 580	Nineteenth An. Rpt., 1900.....	Rec. XII, 975, 997
Bul. 115, Jan., 1900	Rec. XII, 636		
Bul. 116, Feb., 1900	Rec. XII, 662		

Oklahoma Station.

Bul. 1, Dec., 1891	Rec. III, 621	Bul. 26, June, 1897	Rec. IX, 371
Bul. 2, Mar., 1892	Rec. IV, 197	Bul. 27, June, 1897	Rec. IX, 396
Bul. 3, June, 1892	Rec. IV, 354	Bul. 28, June, 1897	Rec. IX, 346
Bul. 4, Oct., 1892.....	Rec. IV, 721, 727	An. Rpt., 1897.....	Rec. IX, 397
Bul. 5, Jan., 1893.....	Rec. IV, 710	Bul. 29, Sept., 1897.....	Rec. IX, 696
Spec. Bul. 1, Oct., 1892	Rec. IV, 750	Bul. 30, Jan., 1898.....	Rec. X, 26
Bul. 6, May, 1893.....	Rec. V, 292, 293	Bul. 31, Feb., 1898.....	Rec. X, 46
Bul. 7, July, 1893.....	Rec. V, 857	Bul. 32, Mar., 1898	Rec. X, 341, 348
Bul. 8, Oct., 1893.....	Rec. V, 867	Bul. 33, Mar., 1898	Rec. X, 340
Bul. 9, Jan., 1894.....	Rec. V, 983, 1003	Bul. 34, Mar., 1898	Rec. X, 373
Bul. 10, Apr., 1894.....	Rec. VI, 34	An. Rpt., 1898	Rec. X, 498
Bul. 11, July, 1894.....	Rec. VI, 756	Bul. 35, Nov., 1898	Rec. X, 983
Bul. 12, Sept., 1894	Rec. VI, 722	Bul. 36, Nov., 1898	Rec. X, 945
Bul. 13, Dec., 1894.....	Rec. VI, 752	Bul. 37, Apr., 1899	Rec. XI, 277
Bul. 14, Jan., 1895.....	Rec. VI, 989	Bul. 38, Apr., 1899	Rec. XI, 223
Bul. 15, Feb., 1895.....	Rec. VI, 985, 988, 997, 1007	Bul. 39, May, 1899	Rec. XI, 391
Bul. 16, Mar., 1895.....	Rec. VI, 983	Bul. 40, May, 1899.....	Rec. XI, 386
An. Rpt., 1894	Rec. VII, 73	Bul. 41, May, 1899.....	Rec. XI, 354
Bul. 17, Dec., 1895.....	Rec. VII, 872	Bul. 42, June, 1899	Rec. XI, 433
Bul. 18, Apr., 1896.....	Rec. VIII, 90	Bul. 43, Nov., 1899	Rec. XI, 929
Bul. 19, Apr., 1896.....	Rec. VIII, 147	An. Rpt., 1899. Rec. XI, 1015, 1017, 1022, 1036, 1051, 1057, 1061, 1066, 1067, 1069, 1076, 1084, 1090, 1091, 1096	
Bul. 20, June, 1896	Rec. VIII, 594, 601, 607, 613, 615	Bul. 44, Dec., 1899.....	Rec. XII, 230
Bul. 21, Sept., 1896..	Rec. VIII, 772, 836	Bul. 45, Mar., 1900	Rec. XII, 312
Bul. 22, Jan., 1897..	Rec. VIII, 963, 976	An. Rpt., 1900	Rec. XII, 622, 623, 640, 648, 652, 657, 664, 670, 677, 691, 692, 693, 697
Bul. 23, Feb., 1897.....	Rec. VIII, 974		
Bul. 24, May, 1897.....	Rec. IX, 333	Bul. 46, May, 1900.....	Rec. XII, 872
Bul. 25, June, 1897.....	Rec. IX, 343, 346, 377	Bul. 47, Sept., 1900..	Rec. XII, 846, 850

Oregon Station.

Bul. 2, Jan., 1889	Rec. I, 142	Bul. 10, Apr., 1891	Rec. II, 660
Bul. 3, Oct., 1889.....	Rec. I, 294	Bul. 11, May, 1891	Rec. II, 740
Bul. 4, Jan., 1890	Rec. II, 69	An. Rpts., 1889 and 1890...	Rec. III, 39
Bul. 5, Apr., 1890	Rec. II, 70	Bul. 12, Sept., 1891	Rec. III, 412
Bul. 6, July, 1890.....	Rec. II, 373	Bul. 13, Oct., 1891.....	Rec. III, 412
Bul. 7, Oct., 1890.....	Rec. II, 511	Bul. 14, Dec., 1891.....	Rec. III, 452
Bul. 8, Jan., 1891.....	Rec. II, 606	Bul. 15, Jan., 1892.....	Rec. III, 622
Bul. 9, Feb., 1891	Rec. II, 660	Bul. 16, Feb., 1892.....	Rec. III, 806

Oregon Station—Continued.

	Volume and page.		Volume and page.
Bul. 17, Feb., 1892.....	Rec. III, 806	Bul. 44, Mar., 1897..	Rec. VIII, 975, 976
Bul. 18, Mar., 1892.....	Rec. III, 889	An. Rpt., 1897.....	Rec. IX, 698
Bul. 19, May, 1892.....	Rec. IV, 47	Bul. 45, June, 1897.....	Rec. IX, 737, 753, 755, 766
Bul. 20, Sept., 1892.....	Rec. IV, 483	Bul. 46, June, 1897.....	Rec. IX, 892
Bul. 21, Oct., 1892.....	Rec. IV, 464	Bul. 47, Sept., 1897.....	Rec. IX, 867
Bul. 22, Jan., 1893.....	Rec. IV, 650	Bul. 48, Jan., 1898.....	Rec. IX, 852
Bul. 23, Feb., 1893.....	Rec. IV, 723	Circ. 1, Oct., 1896.....	Rec. IX, 886
Bul. 24, Mar., 1893.....	Rec. IV, 819	Bul. 49, Jan., 1898.....	Rec. X, 375
Bul. 25, Apr., 1893.....	Rec. V, 161, 206	Bul. 50, Feb., 1898.....	Rec. X, 331
Bul. 26, May, 1893.....	Rec. V, 215	Bul. 51, Mar., 1898.....	Rec. X, 353
Bul. 27, Dec., 1893.....	Rec. V, 877	Bul. 52, Apr., 1898.....	Rec. X, 352, 355
Bul. 28, Jan., 1894.....	Rec. V, 993	Bul. 53, Apr., 1898.....	Rec. X, 544
Bul. 29, Feb., 1894.....	Rec. VI, 55	Bul. 54, May, 1898.....	Rec. X, 635, 674, 675, 684, 686
Bul. 30, Mar., 1894.....	Rec. VI, 36	Bul. 55, Nov., 1898.....	Rec. X, 961
Bul. 31, Apr., 1894.....	Rec. VI, 65, 71	Bul. 56, Mar., 1899.....	Rec. XI, 446
An. Rpt., 1891.....	Rec. VI, 582	Bul. 57, Apr., 1899.....	Rec. XI, 466
An. Rpt., 1892.....	Rec. VI, 582	Bul. 58, June, 1899.....	Rec. XI, 450
Bul. 32, Nov., 1894.....	Rec. VI, 822	Bul. 59, Dec., 1899.....	Rec. XI, 1034
Bul. 33, Dec., 1894.....	Rec. VI, 836	Bul. 60, Jan., 1900.....	Rec. XII, 58
Bul. 34, Feb., 1895.....	Rec. VII, 34, 35	Bul. 61, Mar., 1900.....	Rec. XII, 343
Bul. 35, Mar., 1895..	Rec. VII, 26, 31, 62	Bul. 62, June, 1900.....	Rec. XII, 419, 443, 445, 471, 476
Bul. 36, Apr., 1895.....	Rec. VII, 197	An. Rpt., 1896.....	Rec. XII, 997
Bul. 37, May, 1895.....	Rec. VII, 236	An. Rpt., 1898.....	Rec. XII, 906, 997
An. Rpt., 1894.....	Rec. VII, 259	An. Rpt., 1899.....	Rec. XII, 907, 997
Bul. 38, Sept., 1895.....	Rec. VIII, 68	An. Rpt., 1900.....	Rec. XII, 942, 997
Bul. 39, Dec., 1895.....	Rec. VIII, 81	Bul. 63, Nov., 1900.....	Rec. XII, 1052
Bul. 40, Jan., 1896.....	Rec. VIII, 51	Bul. 64, Dec., 1900.....	Rec. XII, 1092
Bul. 41, Feb., 1896.....	Rec. VIII, 63		
Bul. 42, Mar., 1896..	Rec. VIII, 917, 918		
Bul. 43, Feb., 1897.....	Rec. VIII, 975		

Pennsylvania Station.

An. Rpt., 1888.....	Bul. 2, II, 120	Bul. 21, Oct., 1892.....	Rec. IV, 359
Bul. 6, Jan., 1889.....	Rec. I, 142	Bul. 22, Jan., 1893.....	Rec. IV, 751
Bul. 7, Apr., 1889.....	Rec. I, 143	An. Rpt., 1891.....	Rec. V, 28, 30, 33, 35, 36, 39, 42, 47, 48, 51, 53, 55, 61, 66, 68, 72, 79, 84, 89
Bul. 8, July, 1889.....	Rec. I, 295	Bul. 23, Apr., 1893.....	Rec. V, 54
Bul. 9, Oct., 1889.....	Rec. I, 296	Bul. 24, July, 1893.....	Rec. V, 596, 597
Bul. 10, Jan., 1890.....	Rec. II, 28	Bul. 25, Oct., 1893.....	Rec. V, 1076
Bul. 11, Apr., 1890.....	Rec. II, 127	An. Rpt., 1892.....	Rec. VI, 108, 109, 110, 115, 124, 127, 128, 142, 150, 155, 157, 159, 165, 169, 172
Bul. 12, July, 1890.....	Rec. II, 294	Bul. 26, Jan., 1894.....	Rec. VI, 446
Bul. 13, Oct., 1890.....	Rec. II, 606	An. Rpt., 1893.....	Rec. VI, 695, 701, 703, 716, 717, 718, 719, 720, 722, 726, 727, 730, 731, 735, 752, 753, 755
Bul. 14, Jan., 1891.....	Rec. II, 607	Bul. 27, Apr., 1894.....	Rec. VI, 940
Bul. 15, Apr., 1891.....	Rec. II, 741	Bul. 28, July, 1894.....	Rec. VI, 1014
Bul. 16, July, 1891.....	Rec. III, 177	Bul. 29, Oct., 1894.....	Rec. VII, 709
An. Rpt., 1889.....	Rec. III, 453		
Bul. 17, Oct., 1891.....	Rec. III, 468		
An. Rpt., 1890.....	Rec. III, 712		
Bul. 18, Jan., 1892.....	Rec. III, 722		
Bul. 19, Apr., 1892.....	Rec. III, 889		
Bul. 20, July, 1892.....	Rec. IV, 364		

Pennsylvania Station—Continued.

	Volume and page.		Volume and page.
Bul. 30, Jan., 1895.....	Rec. VII, 762	Bul. of Information 2, Sept., 1897,	Rec. IX, 886
Bul. 31, Apr., 1895.....	Rec. VII, 900		
An. Rpt., 1894.....	Rec. VII, 929, 932, 934, 943, 947, 948, 953, 964, 976, 985, 987, 992, 994	Bul. 39, Nov., 1897.....	Rec. X, 41
Bul. 32, July, 1895.....	Rec. VII, 558	Bul. 40, Dec., 1897.....	Rec. X, 40
Bul. 33, Oct., 1895.....	Rec. VII, 992	Bul. 41, Dec., 1897.....	Rec. X, 589
Bul. 34, Jan., 1896.....	Rec. VIII, 37	Bul. 42, June, 1898.....	Rec. X, 1079
Bul. 35, Apr., 1896.....	Rec. VIII, 298	Bul. 43, July, 1898.....	Rec. X, 1042
Bul. 36, May, 1896.....	Rec. VIII, 497	Bul. 44, Nov., 1898.....	Rec. XI, 83
An. Rpt., 1895.....	Rec. VIII, 752, 754, 756, 757, 763, 767, 773, 775, 777, 778, 790, 791, 811, 822, 823, 826, 829, 830, 834, 836	Bul. 45, Dec., 1898.....	Rec. XI, 84
Bul. 37, Nov., 1896.....	Rec. IX, 351	An. Rpt., 1897-98.....	Rec. XI, 436, 438, 452, 483, 496
Bul. 38, Jan., 1897.....	Rec. IX, 386	Bul. 46, July, 1899.....	Rec. XI, 731
Bul. of Information 1, Dec., 1896,	Rec. IX, 276	Bul. 47, Nov., 1899.....	Rec. XII, 44
An. Rpt., 1896.....	Rec. IX, 807, 815, 819, 823, 826, 832, 841, 842, 844, 858, 873, 885, 888, 897	Bul. 48, Dec., 1899.....	Rec. XII, 71
		Bul. 49, Feb., 1900.....	Rec. XII, 339
		Bul. 50, Feb., 1900.....	Rec. XII, 378
		An. Rpt., 1899.....	Rec. XII, 618, 632, 649, 651, 669, 678, 697
		Bul. 51, Apr., 1900.....	Rec. XII, 645
		Bul. 52, June, 1900.....	Rec. XII, 678
		Bul. 53, Sept., 1900.....	Rec. XII, 875
		Bul. 54, Nov., 1900.....	Rec. XII, 927

Rhode Island Station.

First An. Rpt., 1888.....	Bul. 2, II, 142	Bul. 23, July, 1893.....	Rec. V, 290
Bul. 1, Mar., 1889.....	Rec. I, 145	Bul. 24, Aug., 1893.....	Rec. V, 290
Bul. 2, June, 1889.....	Rec. I, 146	Bul. 25, Sept., 1893.....	Rec. V, 505
Bul. 3, Sept., 1889.....	Rec. I, 296	Bul. 26, Nov., 1893.....	Rec. V, 572, 581, 590
Bul. 4, Dec., 1889.....	Rec. I, 296	Fifth An. Rpt., 1892.....	Rec. V, 775, 776, 778, 786, 789, 792, 793, 794, 797
Bul. 5, Dec., 1889.....	Rec. I, 297	Bul. 27, Mar., 1894.....	Rec. V, 985, 986
Bul. 6, Mar., 1890.....	Rec. II, 295	Bul. 28, July, 1894.....	Rec. VI, 391, 401
Bul. 7, June, 1890.....	Rec. II, 295	Bul. 29, Oct., 1894.....	Rec. VI, 522
Bul. 8, Sept., 1890.....	Rec. II, 374	Bul. 30, Nov., 1894.....	Rec. VI, 882, 906
Second An. Rpt., 1889.....	Rec. II, 423	Bul. 31, Apr., 1895.....	Rec. VII, 125
Bul. 9, Dec., 1890.....	Rec. II, 660	Bul. 32, June, 1895.....	Rec. VII, 294
Bul. 10, May, 1891.....	Rec. III, 244	Sixth An. Rpt., 1893.....	Rec. VII, 373, 377, 378, 379, 380, 396, 405, 407, 425, 426, 432
Bul. 11, June, 1891.....	Rec. III, 315	Bul. 33, Oct., 1895.....	Rec. VII, 757, 760, 782
Third An. Rpt., 1890.....	Rec. III, 529	Seventh An. Rpt., 1894.....	Rec. VII, 844, 848, 849, 850, 851, 854, 857, 858, 862, 873, 875, 876, 889, 891, 900
Bul. 12, Aug., 1891.....	Rec. III, 533	Bul. 34, Dec., 1895.....	Rec. VII, 941
Bul. 13, Sept., 1891.....	Rec. III, 622	Bul. 35, Jan., 1896.....	Rec. VIII, 233
Bul. 14, Oct., 1891.....	Rec. III, 623	Bul. 36, Jan., 1896.....	Rec. VIII, 217
Bul. 15, Apr., 1892.....	Rec. III, 889	Bul. 37, May, 1896.....	Rec. VIII, 493
Fourth An. Rpt., 1891.....	Rec. IV, 242, 244, 246, 250, 253, 254, 262, 275	Eighth An. Rpt., 1895.....	Rec. VIII, 563, 567, 571, 574, 575, 579, 580, 584, 585, 587, 588, 595, 597, 622, 636
Bul. 16, May, 1892.....	Rec. IV, 247	Bul. 33, June, 1896.....	Rec. VIII, 605
Bul. 17, June, 1892.....	Rec. IV, 247		
Bul. 18, Aug., 1892.....	Rec. IV, 337		
Bul. 19, Sept., 1892.....	Rec. IV, 465		
Bul. 20, Dec., 1892.....	Rec. IV, 745		
Bul. 21, Jan., 1893.....	Rec. IV, 715		
Bul. 22, Feb., 1893.....	Rec. IV, 917		

Rhode Island Station—Continued.

	Volume and page.		Volume and page.
Bul. 39, July, 1896.....	Rec. VIII, 682	Eleventh An. Rpt., 1898..	Rec. XI, 905, 908, 911, 914, 915, 917, 918, 924, 928, 944, 972, 994, 998
Bul. 40, Oct., 1896..	Rec. VIII, 768, 798	Bul. 59, Sept., 1899.....	Rec. XI, 1026
Bul. 41, Nov., 1896.....	Rec. VIII, 783	Bul. 60, Nov., 1899	Rec. XII, 39
Bul. 42, Dec., 1896.....	Rec. VIII, 967	Bul. 61, Dec., 1899.....	Rec. XII, 192
Bul. 43, Jan., 1897.....	Rec. VIII, 987	Bul. 62, Feb., 1900.....	Rec. XII, 222
Bul. 44, Mar., 1897 ...	Rec. IX, 135, 146	Bul. 63, Feb., 1900.....	Rec. XII, 282
Bul. 45, Apr., 1897	Rec. IX, 353	Bul. 64, Mar., 1900	Rec. XII, 378
Bul. 46, Aug., 1897	Rec. IX, 640	Bul. 65, Apr., 1900.....	Rec. XII, 333
Ninth An. Rpt., 1896. Rec. IX, 919, 927, 933, 935, 936, 937, 938, 939, 943, 949, 950, 955, 958, 959, 964, 979, 983, 998		Bul. 66, Apr., 1900.....	Rec. XII, 634
Bul. 47, July, 1898.....	Rec. X, 735	Bul. 67, May, 1900.....	Rec. XII, 626
Bul. 48, July, 1898.....	Rec. X, 734	Bul. 68, June, 1900	Rec. XII, 621
Bul. 49, Nov., 1898	Rec. X, 832, 836	Twelfth An. Rpt., 1899.....	Rec. XII, 717, 724, 727, 732, 735, 737, 740, 746, 760, 763, 781, 798
Tenth An. Rpt., 1897	Rec. X, 919, 929, 930, 935, 936, 937, 938, 939, 951, 952, 953, 956, 967, 968, 990, 992, 999	Bul. 69, June, 1900	Rec. XII, 735
Bul. 50, Dec., 1898.....	Rec. XI, 29	Bul. 70, July, 1900.....	Rec. XII, 737
Bul. 51, Dec., 1898.....	Rec. XI, 80	Thirteenth An. Rpt., 1900....	Rec. XII, 907, 919, 927, 944, 952, 966, 974, 982, 990, 997
Bul. 52, Feb., 1899.....	Rec. XI, 262	Bul. 71, Aug., 1900	Rec. XII, 935
Bul. 53, Apr., 1899.....	Rec. XI, 435	Bul. 72, Sept., 1900	Rec. XII, 982
Bul. 54, May, 1899.....	Rec. XI, 438	Bul. 73, Oct., 1900.....	Rec. XII, 933
Bul. 55, June, 1899	Rec. XI, 645	Bul. 74, Nov., 1900	Rec. XII, 1030
Bul. 56, July, 1899.....	Rec. XI, 627	Bul. 75, Dec., 1900.....	Rec. XII, 1030
Bul. 57, Aug., 1899	Rec. XI, 641		
Bul. 58, Aug., 1899	Rec. XI, 642		

South Carolina Station.

First An. Rpt., 1888. Bul. 2, I, 175; II, 142	Bul. 14 (n. s.), Aug., 1893... Rec. V, 1071
Bul. 4, Jan., 1889..... Rec. I, 146	Bul. 15 (n. s.), Mar., 1894.. Rec. V, 1071
Bul. 5, Apr., 1889..... Rec. I, 146	Bul. 16 (n. s.), Apr., 1894 .. Rec. VI, 141
Bul. 6, July, 1889c..... Rec. I, 312	Sixth An. Financial Rpt., 1893,
Bul. 7, Oct., 1889..... Rec. I, 312	Rec. VI, 347
Bul. 8, Mar., 1890 Rec. II, 169	Bul. 17 (n. s.), July, 1894... Rec. VI, 402
Bul. 1 (n. s.), July, 1891... Rec. III, 244	Bul. 18 (n. s.), Aug., 1894 .. Rec. VI, 530
Second An. Rpt., 1889 Rec. III, 315	Bul. 19 (n. s.), Mar., 1895 .. Rec. VII, 256
Bul. 2 (n. s.), July, 1891... Rec. III, 533	Seventh An. Rpt., 1894 ... Rec. VII, 273,
Bul. 3 (n. s.), Oct., 1891... Rec. III, 536	290, 295, 308, 336, 337, 340
Bul. 4 (n. s.), Dec., 1891 ... Rec. III, 536	Bul. 20 (n. s.), June, 1895 .. Rec. VII, 295
Fourth An. Rpt., 1891 Rec. III, 723	Bul. 21 (n. s.), Sept., 1895 .. Rec. VII, 457
Bul. 5 (n. s.), July, 1892 ... Rec. IV, 252	Bul. 22 (n. s.), Nov., 1895 ... Rec. VIII, 84
Bul. 6 (n. s.), July, 1892 ... Rec. IV, 248	Bul. 23 (n. s.), Apr., 1896 .. Rec. VIII, 159
Bul. 7 (n. s.), Sept., 1892 .. Rec. IV, 915	Bul. 24 (n. s.), May, 1896 .. Rec. VIII, 117
Bul. 8 (n. s.), Dec., 1892. Rec. IV, 901, 902	Eighth An. Rpt., 1895... Rec. VIII, 561,
Fifth An. Rpt., 1892 Rec. V, 217	563, 574, 584, 623, 633, 636
Bul. 9 (n. s.), Mar., 1893... Rec. V, 979	Bul. 25 (n. s.), June, 1896 .. Rec. VIII, 625
Bul. 10 (n. s.), Apr., 1893 .. Rec. V, 982	Bul. 26 (n. s.), Sept., 1896 .. Rec. VIII, 625
Bul. 11 (n. s.), Apr., 1893... Rec. V, 976	Bul. 27 (n. s.), Oct., 1896 . Rec. VIII, 1015
Bul. 12 (n. s.), May, 1893... Rec. V, 976	Bul. 28, June, 1897 Rec. IX, 695
Bul. 13 (n. s.), July, 1893 .. Rec. V, 976	Bul. 29, Apr., 1897 Rec. IX, 638

South Carolina Station—Continued.

	Volume and page.
Bul. 30, June, 1897	Rec. IX, 619
Ninth An. Rpt., 1896	Rec. IX, 724, 754, 798
Bul. 32, Nov., 1897	Rec. IX, 735
Tenth An. Rpt., 1897	Rec. IX, 1098
Bul. 31, Oct., 1897	Rec. X, 396
Bul. 33, Mar., 1898	Rec. X, 590, 593
Bul. 34, May, 1898	Rec. X, 631, 644
Bul. 35, June, 1898	Rec. X, 624
Bul. 36, Sept., 1898	Rec. X, 763
Bul. 37, Oct., 1898	Rec. X, 842
Bul. 38, Feb., 1899	Rec. XI, 153, 160
Bul. 39, Feb., 1899	Rec. XI, 198
Bul. 40, Feb., 1899	Rec. XI, 233
Bul. 41, Mar., 1899	Rec. XI, 463, 464
Bul. 42, Mar., 1899	Rec. XI, 439
Bul. 43, Apr., 1899	Rec. XI, 438

	Volume and page.
Bul. 44, June, 1899	Rec. XI, 834
Bul. 45, June, 1899	Rec. XI, 831
Bul. 46, June, 1899	Rec. XI, 835
Bul. 47, June, 1899	Rec. XI, 918
An. Rpt., 1898	Rec. XI, 1024, 1047, 1061, 1064, 1096
An. Rpt., 1899	Rec. XII, 39, 61, 97
Bul. 48, Dec., 1899	Rec. XII, 196
Bul. 49, Jan., 1900	Rec. XII, 151
Bul. 50, Jan., 1900	Rec. XII, 291
Bul. 51, Apr., 1900	Rec. XII, 296
Bul. 52, Apr., 1900	Rec. XII, 475
Bul. 53, Apr., 1900	Rec. XII, 430
Bul. 54, June, 1900	Rec. XII, 626
Bul. 55, Oct., 1900	Rec. XII, 982
Bul. 56, Oct., 1900	Rec. XII, 943

South Dakota Station.

First An. Rpt., 1888	Bul. 2, I, 62
Bul. 9, Jan., 1889	Rec. I, 18
Bul. 10, Feb., 1889	Rec. I, 19
Bul. 11, Mar., 1889	Rec. I, 19
Bul. 12, Apr., 1889	Rec. I, 20
Bul. 13, Apr., 1889	Rec. I, 21
Bul. 14, Apr., 1889	Rec. I, 22
Bul. 15, Nov., 1889	Rec. I, 315
Bul. 16, Feb., 1890	Rec. II, 130
Bul. 17, Mar., 1890	Rec. II, 132
Bul. 18, Mar., 1890	Rec. II, 170
Second An. Rpt., 1889	Rec. II, 374
Bul. 19, Dec., 1890	Rec. II, 424
Third An. Rpt., 1890	Rec. II, 511
Bul. 20, Jan., 1891	Rec. II, 662
Bul. 21, Feb., 1891	Rec. II, 663
Bul. 22, Mar., 1891	Rec. II, 664
Bul. 23, Apr., 1891	Rec. II, 741
Bul. 24, May, 1891	Rec. III, 39
Bul. 25, June, 1891	Rec. III, 537
Bul. 26, July, 1891	Rec. III, 537
Fourth An. Rpt., 1891	Rec. III, 623
Bul. 27, Nov., 1891	Rec. III, 889
Bul. 28, Dec., 1891	Rec. III, 890
Bul. 29, Dec., 1891	Rec. IV, 44, 50
Bul. 30, Mar., 1892	Rec. IV, 170
Bul. 31, May, 1892	Rec. IV, 243
Bul. 32, Dec., 1892	Rec. IV, 829
Bul. 33, Feb., 1893	Rec. IV, 924
Bul. 34, Apr., 1893	Rec. V, 184
Bul. 35, May, 1893	Rec. V, 194, 206
Bul. 36, June, 1893	Rec. V, 203

Bul. 37, Dec., 1893	Rec. VI, 51
Bul. 38, Jan., 1894	Rec. VI, 161
Bul. 39, Feb., 1894	Rec. VI, 338
Bul. 40, May, 1894	Rec. VI, 403
Fifth An. Rpt., 1892	Rec. VI, 513, 543, 549, 550, 560, 568, 581, 582
Sixth An. Rpt., 1893	Rec. VII, 32, 36, 38, 39, 44, 45, 73
Bul. 41, Jan., 1895	Rec. VII, 287
Bul. 42, Feb., 1895	Rec. VII, 403
Bul. 43, May, 1895	Rec. VII, 507
Bul. 44, June, 1895	Rec. VII, 507
Bul. 45, Nov., 1895	Rec. VIII, 46
Seventh An. Rpt., 1894	Rec. VIII, 293, 306, 308, 313, 329, 332, 347, 353
Eighth An. Rpt., 1895	Rec. VIII, 298, 312, 315, 353
Bul. 46, Feb., 1896	Rec. VIII, 636
Bul. 47, Mar., 1896	Rec. VIII, 782, 783, 790, 791
Bul. 48, Apr., 1896	Rec. VIII, 799, 801
Ninth An. Rpt., 1896	Rec. VIII, 937
Bul. 49, Dec., 1896	Rec. VIII, 965
Bul. 50, Jan., 1897	Rec. IX, 48
Bul. 51, Feb., 1897	Rec. IX, 241, 295
Bul. 52, Mar., 1897	Rec. IX, 245, 295
Bul. 53, Apr., 1897	Rec. IX, 247
Bul. 54, May, 1897	Rec. IX, 233
Bul. 55, June, 1897	Rec. IX, 271
Spec. Bul., July, 1897	Rec. IX, 242
Tenth An. Rpt., 1897	Rec. IX, 798
Bul. 56, Jan., 1898	Rec. X, 145

South Dakota Station—Continued.

	Volume and page.		Volume and page.
Bul. 57 Feb. 1898.....	Rec. X, 460	Bul. 63, Mar., 1899	Rec. XI, 878
Bul. 58, Mar., 1898.....	Rec. X, 424	Bul. 64, Apr., 1899	Rec. XI, 817
Bul. 59, Apr., 1898.....	Rec. X, 629, 639	Bul. 65, July, 1899.....	Rec. XI, 848
Bul. 60, May, 1898.....	Rec. X, 629	Bul. 66, Mar., 1900	Rec. XII, 547
An. Rpt., 1898.....	Rec. X, 797	Bul. 67, Apr., 1900	Rec. XII, 552
Bul. 61, Jan., 1899. Rec.	XI, 43, 44, 51, 97	An. Rpt., 1899.....	Rec. XII, 1097
Bul. 62, Feb., 1899.....	Rec. XI, 142	An. Rpt., 1900.....	Rec. XII, 1097

Tennessee Station.

First An. Rpt., 1888.....	Bul. 2, I, 183	Bul. Vol. VII, 1, Jan., 1894. Rec.	VI, 691
Bul. Vol. I, 1, Apr. 1888..	Bul. 2, I, 184	Bul. Vol. VII, 2, Oct., 1894. Rec.	VI, 724
Bul. Vol. I, 2, July, 1888..	Bul. 2, I, 185	Bul. Vol. VII, 3, Dec., 1894. Rec.	VII, 30
Bul. Vol. I, 3, Oct., 1888 ..	Bul. 2, I, 186	Bul. Vol. VII, 4, Dec., 1894.....	Rec. VII, 122, 155
Bul. Vol. II, 1, Jan. 1889...	Rec. I, 148	Seventh An. Rpt., 1894.....	Rec. VII, 259
Bul. Vol. II, 2, Apr., 1889...	Rec. I, 150	Bul. Vol. VIII, 1, Apr., 1895 ..	Rec. VII, 876, 883
Bul. Vol. II, 3, July, 1889...	Rec. I, 315	Bul. Vol. VIII, 2, July, 1895. Rec.	VII, 872
Bul. Vol. II, 4, Oct., 1889...	Rec. I, 316	Bul. Vol. VIII, 3, Oct., 1895. Rec.	VII, 874
Spec. Bul. A, Sept., 1889	Rec. I, 317	Bul. Vol. VIII, 4, Dec., 1895. Rec.	VII, 877
Spec. Bul. B, Oct., 1889	Rec. I, 317	Eighth An. Rpt., 1895	Rec. VIII, 267
Bul. Vol. III, 1, Jan., 1890...	Rec. II, 71	Bul. Vol. IX, 1, May, 1896. Rec.	VIII, 491
Bul. Vol. III, 2, Apr., 1890..	Rec. II, 171	Bul. Vol. IX, 2, July, 1896. Rec.	VIII, 600
Spec. Bul. C, May, 1890.....	Rec. II, 173	Bul. Vol. IX, 3, Sept., 1896. Rec.	VIII, 810
Bul. Vol. III, 3, July, 1890 ..	Rec. II, 254	Bul. Vol. IX, 4, Dec., 1896. Rec.	VIII, 786
Spec. Bul. D, July, 1890	Rec. II, 296	Bul. Vol. X, 1, Jan., 1897 ..	Rec. VIII, 984
Spec. Bul. E, July, 1890	Rec. II, 296	Ninth An. Rpt., 1896. Rec.	VIII, 996, 1034
Bul. Vol. III, 4, Oct., 1890...	Rec. II, 375	Bul. Vol. X, 2, June, 1897... Rec.	IX, 243
Bul. Vol. III, 5, Dec., 1890 ..	Rec. II, 426	Bul. Vol. X, 3, Sept., 1897.....	Rec. X, 26
Second An. Rpt., 1889.....	Rec. II, 513	Tenth An. Rpt., 1897.....	Rec. X, 196
Bul. Vol. III, 6, Dec., 1890 ...	Rec. III, 40	Bul. Vol. X, 4, Dec., 1897	Rec. X, 767
Bul. Vol. IV, 1, Jan., 1891 ..	Rec. III, 40	Bul. Vol. XI, 1, Apr., 1898	Rec. XI, 148, 149
Bul. Vol. IV, 2, Apr., 1891 ..	Rec. III, 42	Eleventh An. Rpt., 1898 ...	Rec. XI, 197
Bul. Vol. IV, 3, July, 1891..	Rec. III, 325	Bul. Vol. XI, 2, June, 1898 ..	Rec. XI, 927
Bul. Vol. IV, 4, Oct., 1891..	Rec. III, 470	Bul. Vol. XI, 3, Sept., 1898..	Rec. XI, 927
Bul. Vol. IV, 5, Dec., 1891..	Rec. III, 537	Bul. Vol. XI, 4, Dec., 1898 ..	Rec. XI, 927
Bul. Vol. V, 1, Jan., 1892 ..	Rec. III, 723	Twelfth An. Rpt., 1899 (with Bul- letins Vol. XII, 1-4)...	Rec. XII, 312, 319, 320, 324, 330, 337, 345, 349, 379, 388, 389, 396, 398
Bul. Vol. V, 2, Apr., 1892 ..	Rec. IV, 249	Bul. Vol. XIII, 1, Jan., 1900...	Rec. XII, 316, 317
Bul. Vol. V, 3, July, 1892 ..	Rec. IV, 419	Bul. Vol. XIII, 2, July, 1900. Rec.	XII, 1035
Bul. Vol. V, 4, Nov., 1892 ..	Rec. IV, 652	Bul. Vol. XIII, 3, Oct., 1900. Rec.	XII, 1029
Third An. Rpt., 1890	Rec. V, 217		
Fourth An. Rpt., 1891	Rec. V, 217		
Fifth An. Rpt., 1892.....	Rec. V, 207, 217		
Bul. Vol. VI, 1, Jan., 1893 ..	Rec. V, 310		
Bul. Vol. VI, 2, Apr., 1893. Rec.	V, 499, 501		
Bul. Vol. VI, 3, July, 1893... Rec.	V, 585		
Bul. Vol. VI, 4, Oct., 1893. Rec.	V, 584, 594		
Sixth An. Rpt., 1893.....	Rec. V, 899		

Texas Station.

First An. Rpt., 1888.....	Bul. 2, I, 186	Bul. 7, Nov., 1889.....	Rec. I, 318
Bul. 5, Mar., 1889	Rec. I, 151	Bul. 8, Dec., 1889	Rec. I, 319
Bul. 6, June, 1889.....	Rec. I, 152	Bul. 9, May, 1890.....	Rec. II, 173

Texas Station—Continued.

	Volume and page.		Volume and page.
Bul. 10, May, 1890	Rec. II, 175	Bul. 34, Feb., 1895	Rec. VII, 98, 114, 115, 119, 121
Bul. 11, Aug., 1890	Rec. II, 296.	Bul. 35, May, 1895. Rec. VII, 366, 376, 377	
Bul. 12, Sept., 1890	Rec. II, 299	Bul. 36, Aug., 1895... Rec. VII, 684, 697	
Second An. Rpt., 1889	Rec. II, 513	Seventh An. Rpt., 1894... Rec. VII, 900	
Third An. Rpt., 1890	Rec. II, 742	Bul. 37, Dec., 1895..... Rec. VIII, 175	
Bul. 13, Dec., 1890	Rec. II, 742	Eighth An. Rpt., 1895... Rec. VIII, 353	
Bul. 14, Mar., 1891	Rec. III, 97	Preliminary Rpt. of Field Experi- ments Mar., 1896..... Rec. VIII, 689	
Bul. 15, May, 1891..... Rec. III, 245		Bul. 38, Mar., 1896..... Rec. VIII, 772	
Bul. 16, June, 1891	Rec. III, 246	Bul. 39, July, 1896.. Rec. VIII, 784, 801	
Bul. 17, Aug., 1891	Rec. III, 325	Bul. 40, Sept., 1896	Rec. IX, 39
Bul. 18, Oct., 1891..... Rec. III, 724		Bul. 41, Dec., 1896	Rec. IX, 269
Bul. 19, Dec., 1891..... Rec. III, 725		Ninth An. Rpt., 1896 . Rec. IX, 332, 397	
Fourth An. Rpt., 1891.... Rec. III, 724		Bul. 42, Mar., 1897 ... Rec. IX, 830, 851	
Bul. 20, Mar., 1891	Rec. III, 890	Bul. 43, Apr., 1897	Rec. X, 125
Bul. 21, June, 1892..... Rec. IV, 357		Bul. 44, July, 1897	Rec. X, 194
Bul. 22, Sept., 1892	Rec. IV, 470	Bul. 45, Dec., 1897	Rec. X, 342
Bul. 23, Nov., 1892	Rec. IV, 658	Bul. 46, 1898..... Rec. X, 838	
Bul. 24, Dec., 1892.... Rec. IV, 731, 732		Tenth An. Rpt., 1898.. Rec. X, 1020, 1098	
Bul. 25, Dec., 1892..... Rec. IV, 712		Bul. 47, 1898..... Rec. XI, 280	
Fifth An. Rpt., 1892	Rec. IV, 950	Bul. 48, 1898..... Rec. XI, 247	
Bul. 26, Mar., 1893	Rec. V, 37	Bul. 49, Dec., 1898..... Rec. XI, 233	
Bul. 27, June, 1893. Rec. V, 562, 602, 607		Bul. 50, Feb., 1899..... Rec. XI, 438	
Bul. 28, Dec., 1893..... Rec. V, 872		Bul. 51, May, 1899..... Rec. XI, 438	
Bul. 29, Dec., 1893..... Rec. VI, 323		Eleventh An. Rpt., 1899.. Rec. XI, 1096	
Bul. 30, Mar., 1894	Rec. VI, 470, 471, 472, 473	Bul. 52, July, 1899..... Rec. XII, 150	
Bul. 31, June, 1894	Rec. VI, 438	Bul. 53, Oct., 1899..... Rec. XII, 194	
Sixth An. Rpt., 1893	Rec. VI, 547, 567, 582	Bul. 54, Nov., 1899	Rec. XII, 139
Bul. 32, Sept., 1894	Rec. VI, 899	Bul. 55, Dec., 1899..... Rec. XII, 473	
Bul. 33, Dec., 1894..... Rec. VII, 152		Bul. 56, Nov., 1899	Rec. XII, 446
		Bul. 57, July, 1900..... Rec. XII, 850	

Utah Station.

Bul. 1, June, 1890	Rec. II, 254	Bul. 17, Oct., 1892	Rec. IV, 485
Bul. 2, Nov., 1890	Rec. II, 376	Bul. 18, Oct., 1892..... Rec. IV, 653	
First An. Rpt., 1890	Rec. II, 514	Bul. 19, Oct., 1892..... Rec. IV, 738	
Bul. 3, Jan., 1891	Rec. II, 515	Bul. 20, Mar., 1893.... Rec. IV, 818, 828	
Bul. 4, Jan., 1891	Rec. II, 515	Bul. 21, Mar., 1893.... Rec. IV, 824, 841	
Bul. 5, Mar., 1891..... Rec. II, 664		Third An. Rpt., 1892.... Rec. V, 32, 34, 36, 38, 42, 43, 48, 50, 51, 52, 53, 71, 74, 77, 87, 89	
Bul. 6, May, 1891..... Rec. III, 100		Bul. 22, May, 1893..... Rec. V, 32, 76	
Bul. 7, July, 1891..... Rec. III, 179		Bul. 23, July, 1893.... Rec. V, 195, 215	
Bul. 8, Aug., 1891..... Rec. III, 412		Bul. 24, Aug., 1893	Rec. V, 414
Bul. 9, Dec., 1891	Rec. III, 470	Bul. 25, Oct., 1893.... Rec. V, 681, 682	
Bul. 10, Dec., 1891..... Rec. III, 470		Bul. 26, Dec., 1893..... Rec. V, 690	
Second An. Rpt., 1891.... Rec. III, 624		Bul. 27, Mar., 1894..... Rec. VI, 86	
Bul. 11, Apr., 1892..... Rec. III, 806		Bul. 28, Apr., 1894..... Rec. VI, 71	
Bul. 12, Mar., 1892	Rec. III, 807	Bul. 29, May, 1894.... Rec. VI, 240, 251	
Bul. 13, May, 1892..... Rec. IV, 71		Bul. 30, June, 1894..... Rec. VI, 240	
Bul. 14, June, 1892... Rec. IV, 30, 44, 58		Bul. 31, June, 1894.... Rec. VI, 203, 251	
Bul. 15, Aug., 1892..... Rec. IV, 355			
Bul. 16, Aug., 1892..... Rec. IV, 354			

Utah Station—Continued.

	Volume and page.		Volume and page.
Bul. 32, June, 1894....	Rec. VI, 213, 214	Seventh An. Rpt., 1896...	Rec. IX, 197
Fourth An. Rpt., 1893...	Rec. VI, 512,	Eighth An. Rpt., 1897....	Rec. IX, 821,
513, 515, 518, 527, 531, 532, 536, 537,		825, 831, 868, 871, 872, 884, 897	
538, 539, 540, 541, 542, 543, 548, 559,		Bul. 51, Dec., 1897.....	Rec. X, 77
566, 569, 570, 572, 580, 581, 582		Bul. 52, Jan., 1898.....	Rec. X, 30
Bul. 33, June, 1894....	Rec. VI, 523, 533	Bul. 53, Feb., 1898.....	Rec. X, 146
Bul. 34, July, 1894.....	Rec. VI, 569	Bul. 54, Feb., 1898....	Rec. X, 175, 179
Bul. 35, Aug., 1894.....	Rec. VI, 747	Bul. 55, Mar., 1898	Rec. X, 661
Bul. 36, Sept., 1894.....	Rec. VI, 751	Bul. 56, Apr., 1898	Rec. X, 634
Bul. 37, Oct., 1894....	Rec. VI, 901, 903	Bul. 57, June, 1898	Rec. X, 986
Bul. 38, Feb., 1895.....	Rec. VII, 163	Bul. 58, July, 1898	Rec. X, 977
Fifth An. Rpt., 1894..	Rec. VII, 189, 259	Ninth An. Rpt., 1898	Rec. XI, 432,
Bul. 39, May, 1895....	Rec. VII, 429, 430	459, 496	
Bul. 40, Dec., 1895.....	Rec. VII, 983	Bul. 59, Mar., 1899	Rec. XI, 441
Bul. 41, Dec., 1895.....	Rec. VIII, 158	Bul. 60, Mar., 1899	Rec. XI, 480
Bul. 42, Feb., 1896.....	Rec. VIII, 260	Bul. 61, Apr., 1899	Rec. XI, 663
Bul. 43, May, 1896..	Rec. VIII, 627, 628	Tenth An. Rpt., 1899.	Rec. XI, 1091, 1096
Bul. 44, July, 1896.....	Rec. VIII, 812	Bul. 62, May, 1899.....	Rec. XII, 152
Bul. 45, Aug., 1896.....	Rec. VIII, 791	Bul. 63, Nov., 1899	Rec. XII, 144
Bul. 46, Nov., 1896	Rec. VIII, 934	Bul. 64, Dec., 1899.	Rec. XII, 245, 246, 267
Bul. 47, Feb., 1897.....	Rec. VIII, 963	Bul. 65, Feb., 1900	Rec. XII, 271
Sixth An. Rpt., 1895....	Rec. VIII, 636	Bul. 66, Apr., 1900	Rec. XII, 631
Bul. 48, Mar., 1897	Rec. IX, 164	Bul. 67, Apr., 1900	Rec. XII, 674
Bul. 49, Apr., 1897	Rec. IX, 252	Bul. 68, June, 1900	Rec. XII, 781
Bul. 50, June, 1897	Rec. IX, 427	Bul. 69, June, 1900..	Rec. XII, 740, 778

Vermont Station.

Second An. Rpt., 1888....	Bul. 2, I, 189	Bul. 31, 1893	Rec. V, 73
Bul. 14, Mar., 1889.....	Rec. I, 155	Bul. 32, 1893	Rec. V, 59
Bul. 15, June, 1889.....	Rec. I, 156	Bul. 33, 1893	Rec. V, 73
Bul. 16, July, 1889.....	Rec. I, 320	Bul. 34, Apr., 1893.....	Rec. V, 164
Bul. 17, Oct., 1889.....	Rec. I, 321	Bul. 35, May, 1893.....	Rec. V, 164
Bul. 18, Jan., 1890.....	Rec. II, 74	Sixth An. Rpt., 1892	Rec. V, 286,
Bul. 19, Apr., 1890	Rec. II, 178	291, 292, 293, 306, 312, 316,	
Bul. 20, May, 1890.....	Rec. II, 178	317, 319, 320, 321, 322, 325	
Bul. 21, Sept., 1890.....	Rec. II, 377	Bul. 36, 1893	Rec. V, 988
Bul. 22, Oct., 1890.....	Rec. II, 515	Bul. 37, 1893	Rec. V, 1003
Third An. Rpt., 1889	Rec. II, 665	Bul. 38, 1893	Rec. V, 1003
Bul. 23, Mar., 1891	Rec. II, 744	Bul. 39, 1893	Rec. V, 1003
Bul. 24, May, 1891.....	Rec. III, 101	Bul. 40, Dec., 1893.....	Rec. V, 988
Bul. 25, 1891	Rec. III, 101	Bul. 41, Apr., 1894.....	Rec. VI, 26
Bul. 26, Sept., 1891.....	Rec. III, 246	Bul. 42, July, 1894.....	Rec. VI, 663
Fourth An. Rpt., 1890....	Rec. III, 470	Seventh An. Rpt., 1893...	Rec. VI, 881,
Bul. 27, Jan., 1892.....	Rec. III, 890	882, 884, 886, 808, 910, 915,	
Bul. 28, Apr., 1892	Rec. III, 891	918, 919, 923, 926, 928, 929,	
Bul. 29, May, 1892.....	Rec. IV, 133	931, 936, 939, 940, 942, 943	
Bul. 30, June, 1892	Rec. IV, 195	Bul. 43, Nov., 1894	Rec. VI, 1007
Fifth An. Rpt., 1891.....	Rec. IV, 461,	Bul. 44, Dec., 1894.....	Rec. VI, 999
464, 465, 470, 471, 474, 475, 481,		Bul. 45, Mar., 1894.....	Rec. VI, 980
482, 483, 484, 486, 487, 488,		Bul. 46, Apr., 1895.....	Rec. VII, 112
489, 490, 492, 493, 494, 495, 496		Bul. 47, May, 1895.....	Rec. VII, 196

Vermont Station—Continued.

	Volume and page.		Volume and page.
Bul. 48, Oct., 1895	Rec. VII, 972	Bul. 66, Sept., 1898	Rec. XI, 56
Eighth An. Rpt., 1894. Rec. VIII, 37, 41,		Bul. 67, Dec., 1898.....	Rec. XI, 47
43, 60, 63, 68, 72, 78,		Eleventh An. Rpt., 1898..	Rec. XI, 307,
84, 85, 86, 88, 89, 92		313, 315, 318, 321, 328, 336, 343,	
Bul. 49, Dec., 1895..	Rec. VIII, 138, 139	347, 351, 352, 353, 354, 355, 370,	
Bul. 50, Mar., 1896.....	Rec. VIII, 116	381, 382, 383, 384, 385, 389, 397	
Bul. 51, Apr., 1896.....	Rec. VIII, 116	Bul. 68, Jan., 1899.....	Rec. XI, 482
Bul. 52, May, 1896.....	Rec. VIII, 116	Bul. 69, Mar., 1899.....	Rec. XI, 437
Bul. 53, Aug., 1896.....	Rec. VIII, 598	Bul. 70, Apr., 1899.....	Rec. XI, 437
Bul. 54, Nov., 1896.....	Rec. VIII, 790	Bul. 71, May, 1899.....	Rec. XI, 437
Bul. 55, Dec., 1896.....	Rec. VIII, 791	Bul. 72, Sept., 1899.....	Rec. XI, 861
Ninth An. Rpt., 1895... Rec. VIII, 966,		Bul. 73, Oct., 1899.....	Rec. XII, 153
969, 970, 987, 992, 996, 1003, 1012,		Bul. 74, Dec., 1899.....	Rec. XII, 151
1014, 1019, 1022, 1023, 1027, 1034		Bul. 75, Jan., 1900... ..	Rec. XII, 151
Bul. 56, Feb., 1897.....	Rec. VIII, 987	Spec. Bul., Oct., 1899	Rec. XII, 185
Bul. 57, Mar., 1897.....	Rec. IX, 36	Twelfth An. Rpt., 1899..	Rec. XII, 214,
Bul. 58, Apr., 1897.....	Rec. IX, 335	222, 224, 226, 234, 235, 238,	
Bul. 59, May, 1897.....	Rec. IX, 335	249, 255, 258, 259, 261, 273,	
Tenth An. Rpt., 1896-97..	Rec. IX, 808,	282, 283, 285, 286, 288, 297	
821, 825, 837, 839, 841, 842,		Bul. 76, Mar., 1900	Rec. XII, 269
844, 846, 859, 862, 870, 873,		Bul. 77, Apr., 1900	Rec. XII, 226
877, 883, 884, 888, 897		Spec. Bul., Mar., 1900....	Rec. XII, 470
Bul. 60, Oct., 1897.....	Rec. X, 459	Bul. 78, Apr., 1900	Rec. XII, 472
Bul. 61, Nov., 1897.....	Rec. X, 437	Bul. 79, Apr., 1900	Rec. XII, 430
Bul. 62, Jan., 1898.....	Rec. X, 440	Bul. 80, May, 1900.....	Rec. XII, 429
Bul. 63, Mar., 1898.....	Rec. X, 623	Bul. 81, Sept., 1900.....	Rec. XII, 877
Bul. 64, Apr., 1898.....	Rec. X, 623	Bul. 82, Sept., 1900.....	Rec. XII, 877
Bul. 65, May, 1898.....	Rec. X, 623		

Virginia Station.

Bul. 1, 1889.....	Rec. I, 158	An. Rpt., 1891.....	Rec. IV, 428
Bul. 2, Oct., 1889.....	Rec. I, 321	Bul. 20, Sept., 1892.....	Rec. IV, 647
Bul. 3, Nov., 1889.....	Rec. I, 321	Bul. 21, Oct., 1892.....	Rec. IV, 649
Bul. 4, Jan., 1890.....	Rec. II, 77	Bul. 22, Nov., 1892.....	Rec. IV, 728
Bul. 5, Mar., 1890.....	Rec. II, 133	Bul. 23, Dec., 1892.....	Rec. IV, 716
Bul. 6, Mar., 1890.....	Rec. II, 133	Bul. 24, Jan., 1893....	Rec. IV, 837, 840
Bul. 7, July, 1890.....	Rec. II, 255	Bul. 25, Feb., 1893.....	Rec. V, 74
An. Rpt., 1890.....	Rec. II, 517	Bul. 26, Mar., 1893.....	Rec. V, 413
Bul. 8, Jan., 1891.....	Rec. II, 669	Bul. 27, Apr., 1893.....	Rec. V, 395
Bul. 9, Feb., 1891.....	Rec. II, 670	Bul. 28, May, 1893.....	Rec. V, 495
Bul. 10, June, 1891.....	Rec. III, 179	Bul. 29, June, 1893.....	Rec. V, 495
Bul. 11, Oct., 1891.....	Rec. III, 625	An. Rpt., 1892.....	Rec. V, 797
Bul. 12, Jan., 1892.....	Rec. IV, 31	Bul. 30, July, 1893.....	Rec. V, 873
Bul. 13, Feb., 1892.....	Rec. IV, 74, 75	Bul. 31, Aug., 1893.....	Rec. V, 862
Bul. 14, Mar., 1892.....	Rec. IV, 30	Bul. 32, Sept., 1893.....	Rec. VI, 335
Bul. 15, Apr., 1892.....	Rec. IV, 55	Bul. 33, Oct., 1893.....	Rec. VI, 345
Bul. 16, May, 1892.....	Rec. IV, 251	An. Rpt., 1893.....	Rec. VI, 583
Bul. 17, June, 1892.....	Rec. IV, 354	Bul. 34, Nov., 1893.....	Rec. VI, 677
Bul. 18, July, 1892.....	Rec. IV, 360	Bul. 35, Dec., 1893.....	Rec. VI, 636
Bul. 19, Aug., 1892.....	Rec. IV, 345	Bul. 36, Jan., 1894.....	Rec. VI, 666

Virginia Station—Continued.

	Volume and page.		Volume and page.
Bul. 37, Feb., 1894.....	Rec. VI, 723	Bul. 72, Jan., 1897.....	Rec. IX, 1067
Bul. 38, Mar., 1894.....	Rec. VI, 694	Bul. 73, Feb., 1897.....	Rec. X, 429
Bul. 39, Apr., 1894.....	Rec. VI, 753	Bul. 74, Mar., 1897.....	Rec. X, 771
Bul. 40, May, 1894.....	Rec. VII, 38	Bul. 75, Apr., 1897.....	Rec. X, 794
Bul. 41, June, 1894.....	Rec. VII, 31	Bul. 76, May, 1897.....	Rec. X, 794
Bul. 42, July, 1894.....	Rec. VII, 300	Bul. 77, June, 1897.....	Rec. X, 1037
An. Rpt., 1894.....	Rec. VII, 340	Bul. 78, July, 1897.....	Rec. X, 1032
Bul. 43, Aug., 1894.....	Rec. VII, 526	Bul. 79, Aug., 1897.....	Rec. XI, 66
Bul. 44, Sept., 1894.....	Rec. VII, 954	Bul. 80, Sept., 1897.....	Rec. XI, 183
Bul. 45, Oct., 1894.....	Rec. VIII, 159	Bul. 81, Oct., 1897.....	Rec. XI, 120
Bul. 46, Nov., 1894.....	Rec. VIII, 159	Bul. 82, Nov., 1897.....	Rec. XI, 128
An. Rpt., 1895.....	Rec. VIII, 208, 267	An. Rpt., 1898.....	Rec. XI, 197
Bul. 47, Dec., 1894.....	Rec. VIII, 221	Bul. 83, Dec., 1897.....	Rec. XI, 198
Bul. 48, Jan., 1896 (1895) ..	Rec. VII, 227	Bul. 84, Jan., 1898.....	Rec. XI, 191
Bul. 49, Feb., 1896 (1895) ..	Rec. VIII, 227	Bul. 85, Feb., 1898.....	Rec. XI, 190
Bul. 50, Mar., 1895.....	Rec. VIII, 396	Bul. 86, Mar., 1898.....	Rec. XI, 173
Bul. 51, Apr., 1895.....	Rec. VIII, 396	Bul. 87, Apr., 1898.....	Rec. XI, 190
Bul. 52, May, 1895.....	Rec. VIII, 397	Bul. 88, May, 1898.....	Rec. XI, 455
Bul. 53, June, 1895.....	Rec. VIII, 492	Bul. 89, June, 1898.....	Rec. XI, 495
Bul. 54, July, 1895.....	Rec. VIII, 525	Bul. 90, July, 1898.....	Rec. XI, 494
Bul. 55, Aug., 1895.....	Rec. VIII, 775	Bul. 91, Aug., 1898.....	Rec. XI, 851
Bul. 56, Sept., 1895.....	Rec. VIII, 775	Bul. 92, Sept., 1898.....	Rec. XI, 838
Bul. 57, Oct., 1895.....	Rec. VIII, 977	Bul. 93, Oct., 1898.....	Rec. XI, 925
Bul. 58, Nov., 1895.....	Rec. VIII, 1033	Bul. 94, Nov., 1898.....	Rec. XI, 931
Bul. 59, Dec., 1895.....	Rec. IX, 244	Bul. 95, Dec., 1898.....	Rec. XI, 1091
Bul. 60, Jan., 1896.....	Rec. IX, 244	Bul. 96, Jan., 1899.....	Rec. XI, 1074
Bul. 61, Feb., 1896.....	Rec. IX, 293	An. Rpt., 1899.....	Rec. XII, 121, 198
Bul. 62, Mar., 1896.....	Rec. IX, 255	Bul. 97, Feb., 1899.....	Rec. XII, 164
Bul. 63, Apr., 1896.....	Rec. IX, 691	Bul. 98, Mar., 1899 ..	Rec. XII, 122, 151
Bul. 64, May, 1896.....	Rec. IX, 693	Bul. 99, Apr., 1899.....	Rec. XII, 245
Bul. 65, June, 1896.....	Rec. IX, 646	Bul. 100, May, 1899.....	Rec. XII, 270
Bul. 66, July, 1896.....	Rec. IX, 672	Bul. 101, June, 1899.....	Rec. XII, 445
Bul. 67, Aug., 1896.....	Rec. IX, 674	Bul. 102, July, 1899.....	Rec. XII, 467
An. Rpt., 1896.....	Rec. IX, 731, 798	Bul. 103, Aug., 1899.....	Rec. XII, 597
Bul. 68, Sept., 1896.....	Rec. IX, 784	Bul. 104, Sept., 1899.....	Rec. XII, 597
Bul. 69, Oct., 1896.....	Rec. IX, 747	Bul. 105, Oct., 1899.....	Rec. XII, 672
Bul. 70, Nov., 1896.....	Rec. IX, 798	Bul. 106, Nov., 1899.....	Rec. XII, 695
An. Rpt., 1897.....	Rec. IX, 1034, 1098	An. Rpt., 1900.....	Rec. XII, 1017, 1098
Bul. 71, Dec., 1896.....	Rec. IX, 1094		

Washington Station.

Bul. 1, Dec., 1891.....	Rec. III, 627	Third An. Rpt., 1893.....	Rec. VI, 583
Bul. 2, Jan., 1892.....	Rec. III, 726	Bul. 10, Dec., 1893.....	Rec. VI, 635
Bul. 3, Feb., 1892.....	Rec. III, 807	Bul. 11, Feb., 1894.....	Rec. VI, 663
Bul. 4, May, 1892.....	Rec. IV, 254	Bul. 12, 1894.....	Rec. VII, 133
Bul. 5, May, 1892.....	Rec. IV, 275	Fourth An. Rpt., 1894.....	Rec. VII, 259
First An. Rpt., 1891.....	Rec. IV, 370	Bul. 13, 1894.....	Rec. VII, 375
Bul. 6, Oct., 1892.....	Rec. IV, 922	Bul. 14, Nov., 1894.....	Rec. VII, 766
Second An. Rpt., 1892.....	Rec. V, 217	Bul. 15, 1894.....	Rec. VII, 762
Bul. 7, Jan., 1893.....	Rec. VI, 562	Bul. 16, Mar., 1895.....	Rec. VII, 798
Bul. 8, June, 1893.....	Rec. VI, 554, 560	Bul. 17, 1895.....	Rec. VIII, 321
Bul. 9, Oct., 1893.....	Rec. VI, 543	Bul. 18, Aug., 1895.....	Rec. VIII, 347

Washington Station—Continued.

	Volume and page.		Volume and page.
Bul. 19, 1896	Rec. VIII, 313	Sixth An. Rpt., 1896	Rec. X, 716, 727, 735, 760, 798
Bul. 20, 1896	Rec. VIII, 306		
Bul. 21, 1896	Rec. IX, 422	Bul. 33, May, 1898	Rec. X, 736
Fifth An. Rpt., 1895	Rec. VIII, 537	Bul. 34, May, 1898	Rec. X, 760
Bul. 22, Oct., 1896	Rec. VIII, 1016	Bul. 35, May, 1898	Rec. X, 867
Bul. 23, Oct., 1896	Rec. IX, 33	Bul. 36, May, 1898	Rec. X, 869
Bul. 24, Oct., 1896	Rec. IX, 92	Seventh An. Rpt., 1897	Rec. XI, 898
Bul. 25, Dec., 1896	Rec. IX, 246	Eighth An. Rpt., 1898	Rec. XI, 998
Bul. 26, Dec., 1896	Rec. IX, 240	Bul. 37, Oct., 1898	Rec. XI, 1055
Bul. 27, Jan., 1897	Rec. IX, 260	Bul. 38, May, 1899	Rec. XI, 1045, 1064
Bul. 28, Jan., 1897	Rec. IX, 295	Bul. 39, Nov., 1899	Rec. XI, 1094
Bul. 29, Dec., 1896	Rec. X, 583	Bul. 40, Dec., 1899	Rec. XII, 225
Bul. 30, Dec., 1897	Rec. X, 550	Bul. 41, 1900	Rec. XII, 234
Bul. 31, Dec., 1897	Rec. X, 545	Bul. 42, 1900	Rec. XII, 265
Bul. 32, 1898	Rec. X, 593		

West Virginia Station.

First An. Rpt., 1888	Bul. 2, II, 158	Bul. 33, Sept., 1893	Rec. V, 680
Bul. 4, Mar., 1889	Rec. I, 160	Fourth An. Financial Statement, 1891	Rec. V, 797
Bul. 5, June, 1889	Rec. I, 161	Bul. 34, Dec., 1893	Rec. V, 976
Bul. 6, 1889	Rec. I, 322	Bul. 35, Jan., 1894	Rec. V, 991
Bul. 7, 1890	Rec. II, 300	Bul. 36, Feb., 1894	Rec. V, 1078
Bul. 8, June, 1890	Rec. II, 517	Spec. Bul., Aug., 1894	Rec. VI, 402
Bul. 9, July, 1890	Rec. II, 517	Bul. 37, July, 1894	Rec. VI, 809
Bul. 10, Aug., 1890	Rec. II, 517	Bul. 38, Nov., 1894	Rec. VI, 983, 997
Spec. Bul., 1890, (Potash and Pay- ing Crops)	Rec. II, 517	Spec. Bul. 2, 1894	Rec. VI, 1030
Bul. 11, Sept., 1890	Rec. II, 744	Spec. Bul., Dec., 1894	Rec. VII, 112
Bul. 12, Dec., 1890	Rec. II, 745	Bul. 39, Jan., 1895	Rec. VII, 213
Third An. Rpt., 1890	Rec. III, 44	Spec. Bul., July, 1895	Rec. VII, 295
Bul. 13, Jan., 1891	Rec. III, 101	Bul. 40, Dec., 1895	Rec. VIII, 117
Bul. 14, Feb., 1891	Rec. III, 101	Bul. 41, Jan., 1896	Rec. VIII, 121
Bul. 15, Mar., 1891	Rec. III, 102	Bul. 42, Feb., 1896	Rec. VIII, 225
Bul. 16, Apr., 1891	Rec. III, 102	Bul. 43, Mar., 1896	Rec. VIII, 318
Bul. 17, May, 1891	Rec. III, 102	Bul. 44, Apr., 1896	Rec. VIII, 612
Bul. 18, Sept., 1891	Rec. III, 628	Bul. 45, Dec., 1896	Rec. IX, 176
Bul. 19, Nov., 1891	Rec. III, 629	Bul. 46, Dec., 1896	Rec. IX, 638
Bul. 20, Jan., 1892	Rec. III, 807	Fourth An. Rpt., 1891	Rec. IX, 721, 726, 748, 755, 774, 799
Bul. 21, Apr., 1892	Rec. III, 808		
Bul. 22, Feb., 1892	Rec. III, 892	Fifth An. Rpt., 1892	Rec. IX, 807, 897
Bul. 23, May, 1892	Rec. IV, 167	Sixth An. Rpt., 1893	Rec. IX, 832, 841, 857, 897
Bul. 24, June, 1892	Rec. IV, 642		
Bul. 25, Aug., 1892	Rec. IV, 649	Seventh An. Rpt., 1894	Rec. IX, 898
Bul. 26, Sept., 1892	Rec. IV, 715	Eighth An. Rpt., 1895	Rec. IX, 816, 858, 898
Bul. 27, Nov., 1892	Rec. IV, 728		
Bul. 28, Dec., 1892	Rec. IV, 714, 717	Ninth An. Rpt., 1896	Rec. IX, 918, 919, 921, 927, 939, 944, 948, 950, 951, 962, 981, 999
Bul. 29, Jan., 1893	Rec. IV, 804, 819		
Bul. 30, 1893	Rec. IV, 938	Bul. 47, Dec., 1896	Rec. IX, 950
Bul. 31, Apr., 1893	Rec. V, 311	Bul. 48, Dec., 1896	Rec. IX, 948
Spec. Bul. Aug., 1893	Rec. V, 391	Bul. 49, Mar., 1897	Rec. IX, 946
Bul. 32, May, 1893	Rec. V, 686		

West Virginia Station—Continued.

	Volume and page.		Volume and page.
Bul. 50, Jan., 1898.....	Rec. X, 162	Bul. 60, June, 1899.....	Rec. XI, 774
Bul. 51, Jan., 1898.....	Rec. X, 136	Bul. 61, Sept., 1899.....	Rec. XII, 73
Bul. 52, Mar., 1898.....	Rec. X, 152	Bul. 62, Oct., 1899.....	Rec. XII, 47
Spec. Bul., May, 1898.....	Rec. X, 136	Bul. 63, Jan., 1900.....	Rec. XII, 226
Spray Calendar, 1898.....	Rec. X, 374	Bul. 64, Jan., 1900.....	Rec. XII, 437
Tenth An. Rpt., 1897.....	Rec. X, 1067, 1098	Bul. 65, Apr., 1900.....	Rec. XII, 430
Bul. 53, Dec., 1898.....	Rec. XI, 34	Twelfth An. Rpt., 1899....	Rec. XII, 558, 580, 599
Bul. 54, Jan., 1899.....	Rec. XI, 251		
Bul. 55, Mar., 1899.....	Rec. XI, 239	Bul. 66, Feb., 1900.....	Rec. XII, 573
Bul. 56, Apr., 1899.....	Rec. XI, 475	Bul. 67, Aug., 1900.....	Rec. XII, 863
Bul. 57, May, 1899.....	Rec. XI, 438	Bul. 68, Sept., 1900.....	Rec. XII, 1063
Bul. 58, June, 1899.....	Rec. XI, 583	Bul. 69, Oct., 1900.....	Rec. XII, 1062
Eleventh An. Rpt., 1898....	Rec. XI, 698	Bul. 70, Nov., 1900.....	Rec. XII, 1064
Bul. 59, June, 1899.....	Rec. XI, 774	Thirteenth An. Rpt., 1900..	Rec. XII, 1098

Wisconsin Station.

Fifth An. Rpt., 1888.....	Bul. 2, I, 191	Bul. 43, Jan., 1895.....	Rec. VII, 936, 959, 986
Bul. 18, Jan., 1889.....	Rec. I, 161		
Bul. 19, Apr., 1889.....	Rec. I, 164	Tenth An. Rpt., 1893.....	Rec. VII, 559, 565, 567, 568, 576, 581, 583, 589, 592, 614, 615, 629, 630, 631
Bul. 20, July, 1889.....	Rec. I, 323		
Bul. 21, Oct., 1889.....	Rec. I, 324	Bul. 44, Apr., 1895.....	Rec. VII, 987
Bul. 22, Jan., 1890.....	Rec. II, 29	Bul. 45, July, 1895.....	Rec. VIII, 49
Bul. 23, Apr., 1890.....	Rec. II, 134	Bul. 46, Oct., 1895.....	Rec. VIII, 170
Bul. 24, July, 1890.....	Rec. II, 256	Bul. 47, Nov., 1895.....	Rec. VIII, 115
Bul. 25, Oct., 1890.....	Rec. II, 301	Bul. 48, Jan., 1896.....	Rec. VIII, 261
Sixth An. Rpt., 1889.....	Rec. II, 426	Bul. 49, Mar., 1896.....	Rec. VIII, 212
Seventh An. Rpt., 1890....	Rec. II, 436	Bul. 50, Mar., 1896.....	Rec. VIII, 240
Bul. 26, Jan., 1891.....	Rec. II, 671	Bul. 51, June, 1896.....	Rec. VIII, 208
Bul. 27, Apr., 1891.....	Rec. III, 48	Eleventh An. Rpt., 1894....	Rec. VIII, 293, 295, 297, 298, 300, 303, 309, 310, 313, 314, 324, 327, 328, 329, 332, 334, 335, 337, 340, 342, 347, 350, 353
Bul. 28, July, 1891.....	Rec. III, 248		
Bul. 29, Oct., 1891.....	Rec. III, 480	Twelfth An. Rpt., 1895....	Rec. VIII, 671, 682, 685, 686, 689, 692, 695, 696, 699, 700, 702, 709, 712, 714, 715, 716, 719, 720, 721, 722, 725, 726, 728, 730, 732, 733, 736
Bul. 30, Jan., 1892.....	Rec. III, 808		
Eighth An. Rpt., 1891....	Rec. IV, 121, 122, 136, 141, 145, 147, 155, 165, 170, 171, 173, 176, 178, 180, 182, 183, 184, 185, 187, 189, 195, 196, 197	Bul. 52, July, 1896....	Rec. VIII, 932, 933
Bul. 31, Apr., 1892....	Rec. IV, 193, 194	Bul. 53, July, 1896.....	Rec. VIII, 880
Bul. 32, July, 1892....	Rec. IV, 260, 261	Bul. 54, Aug., 1896.....	Rec. IX, 181
Bul. 33, Oct., 1892.....	Rec. IV, 740	Bul. 55, Mar., 1897.....	Rec. IX, 133
Bul. 34, Jan., 1893.....	Rec. IV, 726	Bul. 56, Mar., 1897.....	Rec. IX, 286
Bul. 35, Apr., 1893....	Rec. IV, 835, 838	Bul. 57, Mar., 1897.....	Rec. IX, 339
Bul. 36, July, 1893.....	Rec. V, 82	Bul. 58, Apr., 1897.....	Rec. IX, 374
Ninth An. Rpt., 1892....	Rec. V, 480, 483, 484, 486, 493, 494, 496, 498, 499, 500, 502, 503, 504, 506, 507, 509	Bul. 59, May, 1897....	Rec. IX, 378, 393
Bul. 37, Oct., 1893.....	Rec. V, 590	Bul. 60, May, 1897.....	Rec. IX, 387
Bul. 38, Jan., 1894.....	Rec. V, 884	Thirteenth An. Rpt., 1896....	Rec. IX, 532, 534, 536, 543, 553, 557, 559, 560, 561, 577, 578, 579, 580, 581, 582, 583, 586, 587, 588, 589, 591, 594, 597, 598
Bul. 39, Apr., 1894.....	Rec. VI, 145		
Bul. 40, July, 1894.....	Rec. VI, 333	Bul. 61, Sept., 1897.....	Rec. IX, 888
Bul. 41, Aug., 1894.....	Rec. VI, 661		
Bul. 42, Oct., 1894.....	Rec. VI, 622		

Wisconsin Station—Continued.

	Volume and page.		Volume and page.
Bul. 62, Sept., 1897.....	Rec. IX, 990	Fifteenth An. Rpt., 1898..	Rec. XI, 511,
Bul. 63, Oct., 1897.....	Rec. X, 45		520, 521, 523, 528, 537, 540, 544,
Bul. 64, Jan., 1898.....	Rec. X, 39		560, 565, 567, 570, 571, 578, 579,
Bul. 65, Feb., 1898.....	Rec. X, 155		580, 581, 584, 585, 587, 595, 599
Bul. 66, Apr., 1898.....	Rec. X, 136	Bul. 74, May, 1899.....	Rec. XI, 585
Bul. 67, June, 1898.....	Rec. X, 385	Bul. 75, June, 1899.....	Rec. XI, 673
Bul. 68, June, 1898.....	Rec. X, 695	Bul. 76, July, 1899.....	Rec. XI, 749
Fourteenth An. Rpt., 1897..	Rec. X, 720,	Bul. 77, Aug., 1899.....	Rec. XI, 930
	727, 728, 729, 730, 735, 740, 741,	Bul. 78, Aug., 1899.....	Rec. XI, 986
	746, 751, 755, 757, 759, 762, 773,	Bul. 79, Sept., 1899.....	Rec. XI, 1095
	774, 775, 776, 777, 778, 781, 782,	Sixteenth An. Rpt., 1899.	Rec. XII, 19, 22,
	785, 787, 790, 792, 797, 798		23, 28, 34, 36, 39, 40, 42, 43, 45, 49,
Bul. 69, Sept., 1898.....	Rec. X, 889		51, 53, 71, 74, 75, 76, 77, 81, 82, 83,
Bul. 70, Jan., 1899.....	Rec. XI, 186		84, 85, 86, 87, 88, 89, 90, 91, 92, 98
Bul. 71, Feb., 1899.....	Rec. XI, 143	Bul. 80, Jan., 1900.....	Rec. XII, 32
Bul. 72, Apr., 1899.....	Rec. XI, 150	Bul. 81, Apr., 1900.....	Rec. XII, 226
Bul. 73, Apr., 1899.....	Rec. XI, 138	Bul. 82, Apr., 1900.....	Rec. XII, 492
		Bul. 83, May, 1900.....	Rec. XII, 495

Wyoming Station.

Bul. 1, May, 1891.....	Rec. III, 50	Bul. 26, Dec., 1895.....	Rec. VIII, 48
Bul. 2, Aug., 1891.....	Rec. III, 182	Bul. 27, Mar., 1896....	Rec. VIII, 32, 36
Bul. 3, Nov., 1891.....	Rec. III, 413	Bul. 28, May, 1896.....	Rec. VIII, 291
First An. Rpt., 1891.....	Rec. III, 629	Fifth An. Rpt., 1895....	Rec. VIII, 293,
Bul. 4, Dec., 1891.....	Rec. III, 630		298, 306, 307, 308, 312, 314, 318, 353
Bul. 5, Feb., 1892.....	Rec. III, 727	Bul. 29, July, 1896.....	Rec. VIII, 568
Bul. 6, May, 1892.....	Rec. IV, 23	Index Bul. A, July, 1896.	Rec. VIII, 636
Bul. 7, July, 1892.....	Rec. IV, 173	Bul. 30, Sept., 1896.....	Rec. VIII, 815
Bul. 8, Oct., 1892.....	Rec. IV, 496	Bul. 31, Dec., 1896.....	Rec. VIII, 794
Bul. 9, Dec., 1892.....	Rec. IV, 648	Sixth An. Rpt., 1896....	Rec. VIII, 956,
Bul. 10, Dec., 1892....	Rec. IV, 709, 710		964, 1034
Bul. 11, Feb., 1893.....	Rec. IV, 825	Bul. 32, Mar., 1897.....	Rec. IX, 239
Bul. 12, Apr., 1893.....	Rec. IV, 802	Bul. 33, June, 1897.....	Rec. IX, 472
Bul. 13, July, 1893.....	Rec. V, 71	Seventh An. Rpt., 1897...	Rec. IX, 552,
Second An. Rpt., 1892.....	Rec. V, 325		581, 598
Bul. 14, Oct., 1893.....	Rec. V, 567	Bul. 34, Nov., 1897.....	Rec. X, 44
Third An. Rpt., 1893.....	Rec. V, 676,	Bul. 35, Dec., 1897.....	Rec. X, 29
	680, 682, 688, 692	Bul. 36, Apr., 1898.....	Rec. X, 346
Bul. 15, Dec., 1893.....	Rec. V, 682	Bul. 37, June, 1898.....	Rec. X, 947
Bul. 16, Dec., 1893.....	Rec. V, 679	Bul. 38, Sept., 1898.....	Rec. X, 965
Bul. 17, Mar., 1894.....	Rec. VI, 18,	Eighth An. Rpt., 1898....	Rec. X, 999
	23, 38, 44, 53, 55, 56	Bul. 39, Dec., 1898.....	Rec. X, 1025
Bul. 18, June, 1894....	Rec. VI, 345, 346	Bul. 40, Jan., 1899.....	Rec. XI, 53
Bul. 19, Sept., 1894.....	Rec. VI, 640	Ninth An. Rpt., 1899....	Rec. XI, 1015,
Bul. 20, Oct., 1894.....	Rec. VI, 848		1017, 1022, 1052, 1053, 1096
Fourth An. Rpt., 1894....	Rec. VI, 879,	Bul. 41, Nov., 1899.....	Rec. XI, 1026
	881, 898, 902, 903, 904, 942, 943	Bul. 42, Dec., 1899.....	Rec. XII, 138
Bul. 21, Jan., 1895.....	Rec. VI, 1000	Bul. 43, Mar., 1900.....	Rec. XII, 430
Bul. 22, Apr., 1895.....	Rec. VII, 203,	Bul. 44, Apr., 1900.....	Rec. XII, 427
	209, 210, 211, 215	Tenth An. Rpt., 1900....	Rec. XII, 1008,
Bul. 23, May, 1895.....	Rec. VII, 286		1015, 1016, 1021, 1037,
Bul. 24, Aug., 1895.....	Rec. VII, 475		1039, 1050, 1095, 1098
Bul. 25, Nov., 1895.....	Rec. VII, 578	Bul. 45, June, 1900.....	Rec. XII, 1019

DEPARTMENT OF AGRICULTURE PUBLICATIONS

Farmers' Bulletins.

	Volume and page.		Volume and page.
Bul. 3	Rec. II, 608	Bul. 44	Rec. VIII, 390
Bul. 4	Rec. II, 609	Bul. 45	Rec. IX, 368
Bul. 5	Rec. III, 631	Bul. 46	Rec. IX, 394
Bul. 6	Rec. III, 631	Bul. 47	Rec. IX, 370
Bul. 7	(<i>a</i>)	Bul. 48	Rec. IX, 348
Bul. 8	Rec. III, 894	Bul. 49	Rec. IX, 377
Bul. 9	Rec. IV, 402	Bul. 50	Rec. IX, 348
Bul. 10	Rec. IV, 669	Bul. 51	Rec. IX, 378
Bul. 11	Rec. V, 219	Bul. 52	Rec. IX, 344
Bul. 12	Rec. V, 218	Bul. 53	Rec. IX, 357
Bul. 13	Rec. V, 799	Bul. 54	Rec. IX, 727
Bul. 14	Rec. V, 901	Bul. 55	Rec. IX, 795
Bul. 15	Rec. V, 1004	Bul. 56	Rec. IX, 799
Bul. 16	Rec. V, 1087	Bul. 57	Rec. IX, 795
Bul. 17	Rec. VI, 233	Bul. 58	Rec. IX, 745, 786
Bul. 18	Rec. VI, 294	Bul. 59	Rec. IX, 770
Bul. 19	Rec. VI, 315	Bul. 60	Rec. IX, 748
Bul. 19 (rev.)	Rec. IX, 75	Bul. 60 (rev.)	Rec. X, 148
Bul. 19 (rev.)	Rec. X, 661	Bul. 61	Rec. IX, 749
Bul. 20	Rec. VI, 515	Bul. 62	Rec. IX, 899
Bul. 21	Rec. VI, 521	Bul. 63	Rec. IX, 886
Bul. 22	Rec. VI, 842	Bul. 64	Rec. IX, 874
Bul. 23	Rec. VI, 752	Bul. 65	Rec. IX, 899
Bul. 24	Rec. VI, 664	Bul. 66	Rec. IX, 828
Bul. 25	Rec. VI, 803	Bul. 67	Rec. IX, 844
Bul. 26	Rec. VI, 986	Bul. 68	Rec. IX, 849
Bul. 27	Rec. VI, 982	Bul. 69	Rec. IX, 899
Bul. 28	Rec. VII, 135	Bul. 70	Rec. X, 168
Bul. 29	Rec. VII, 429	Bul. 71	Rec. X, 179
Bul. 30	Rec. VII, 409	Bul. 72	Rec. X, 147
Bul. 31	Rec. VII, 380	Bul. 73	Rec. X, 197
Bul. 31 (rev.)	Rec. X, 42	Bul. 74	Rec. X, 181
Bul. 32	Rec. VII, 430	Bul. 75	Rec. X, 154
Bul. 33	Rec. VII, 766	Bul. 76	Rec. X, 354
Bul. 34	Rec. VII, 969	Bul. 77	Rec. X, 335
Bul. 35	Rec. VII, 955	Bul. 78	Rec. X, 397
Bul. 36	Rec. VII, 985	Bul. 79	Rec. X, 397
Bul. 37	Rec. VIII, 125	Bul. 80	Rec. X, 569
Bul. 38	Rec. VIII, 240	Bul. 81	Rec. X, 540
Bul. 39	Rec. VIII, 224	Bul. 82	Rec. X, 547
Bul. 40	Rec. VIII, 351	Bul. 83	Rec. X, 531
Bul. 41	Rec. VIII, 428	Bul. 84	Rec. X, 698
Bul. 42	Rec. VIII, 438	Bul. 85	Rec. X, 678
Bul. 43	Rec. VIII, 391	Bul. 86	Rec. X, 928

^aSpraying Fruits for Insect Pests and Fungus Diseases, with a Special Consideration of the Subject in its Relation to the Public Health (pp. 20).—This bulletin was overlooked in abstracting. It describes the composition and use of common insecticides and fungicides for spraying various fruits, and considers the possible danger to health from eating such fruit. "It is mainly intended for the information and satisfaction of the consumer by showing him exactly the character of the spraying recommended, and the utter impossibility of evil consequences to him."

Farmers' Bulletins—Continued.

	Volume and page.		Volume and page.
Bul. 87.....	Rec. X, 999	Bul. 106.....	Rec. XI, 983
Bul. 88.....	Rec. XI, 133	Bul. 107.....	Rec. XI, 999
Bul. 89.....	Rec. XI, 145	Bul. 108.....	Rec. XI, 927
Bul. 90.....	Rec. XI, 293	Bul. 109.....	Rec. XI, 999
Bul. 91.....	Rec. XI, 260	Bul. 110.....	Rec. XII, 235
Bul. 92.....	Rec. XI, 296	Bul. 111.....	Rec. XII, 251
Bul. 93.....	Rec. XI, 278	Bul. 112.....	Rec. XII, 279
Bul. 94.....	Rec. XI, 250	Bul. 113.....	Rec. XII, 245
Bul. 95.....	Rec. XI, 395	Bul. 114.....	Rec. XII, 298
Bul. 96.....	Rec. XI, 381	Bul. 115.....	Rec. XII, 338
Bul. 97.....	Rec. XI, 397	Bul. 116.....	Rec. XII, 345
Bul. 98.....	Rec. XI, 397	Bul. 117.....	Rec. XII, 380
Bul. 99.....	Rec. XI, 370	Bul. 118.....	Rec. XII, 346
Bul. 100.....	Rec. XI, 381	Bul. 119.....	Rec. XII, 798
Bul. 101.....	Rec. XI, 539	Bul. 120.....	Rec. XII, 774
Bul. 102.....	Rec. XI, 539	Bul. 121.....	Rec. XII, 876
Bul. 103.....	Rec. XI, 599	Bul. 122.....	Rec. XII, 898
Bul. 104.....	Rec. XI, 517	Bul. 123.....	Rec. XII, 1051
Bul. 105.....	Rec. XI, 599		

Division of Agrostology.

Bul. 1.....	Rec. VII, 575	Bul. 18.....	Rec. XI, 423
Circ. 1.....	Rec. VII, 396	Bul. 19.....	Rec. XI, 423
Circ. 2.....	Rec. VII, 397	Circ. 9.....	Rec. XI, 28
Circ. 3.....	Rec. VII, 947	Circ. 10.....	Rec. XI, 23
Bul. 2.....	Rec. VIII, 306	Circ. 11.....	Rec. XI, 219
Bul. 3.....	Rec. VIII, 687	Circ. 12.....	Rec. XI, 340
Bul. 4.....	Rec. VIII, 748, 749	Circ. 13.....	Rec. XI, 339
Bul. 5.....	Rec. VIII, 781	Circ. 14.....	Rec. XI, 341
Bul. 6.....	Rec. VIII, 883	Circ. 15.....	Rec. XI, 709
Circ. 4.....	Rec. VIII, 774	Circ. 16.....	Rec. XI, 709
Bul. 7.....	Rec. IX, 327	Circ. 17.....	Rec. XI, 926
Bul. 8.....	Rec. IX, 328	Circ. 18.....	Rec. XI, 1033
Bul. 9.....	Rec. IX, 623	Circ. 19.....	Rec. XI, 1015
Circ. 4 (rev.).....	Rec. IX, 643	Circ. 20.....	Rec. XI, 1033
Circ. 5.....	Rec. IX, 748	Circ. 21.....	Rec. XI, 1032
Bul. 7 (rev.).....	Rec. X, 518	Circ. 22.....	Rec. XI, 1033
Bul. 10.....	Rec. X, 342	Bul. 2 (rev.).....	Rec. XII, 615
Bul. 11.....	Rec. X, 515	Bul. 14 (rev.).....	Rec. XII, 421
Bul. 12.....	Rec. X, 541	Bul. 20.....	Rec. XII, 24
Bul. 13.....	Rec. X, 718	Bul. 21.....	Rec. XII, 219
Bul. 14.....	Rec. X, 718	Bul. 22.....	Rec. XII, 332
Bul. 15.....	Rec. X, 718	Bul. 23.....	Rec. XII, 615
Circ. 5 (rev.).....	Rec. X, 42	Bul. 24.....	Rec. XII, 1013
Circ. 6.....	Rec. X, 43	Circ. 23.....	Rec. XII, 230
Circ. 6 (rev.).....	Rec. X, 245	Circ. 24.....	Rec. XII, 232
Circ. 7.....	Rec. X, 928	Circ. 25.....	Rec. XII, 329
Circ. 8.....	Rec. X, 1005	Circ. 26.....	Rec. XII, 442
Bul. 16.....	Rec. XI, 219	Circ. 27.....	Rec. XII, 911
Bul. 17.....	Rec. XI, 219	Circ. 28.....	Rec. XII, 1037

Bureau of Animal Industry.

	Volume and page.		Volume and page.
Spec. Rpt., Hog Cholera, 1889.	Rec. I, 103	Circ. 12	Rec. VIII, 335
Spec. Rpt., Epizootic Diseases Among Swine, 1889.	Rec. I, 107	Circ. 13	Rec. VIII, 626
Spec. Bul., Convention of Cattle- men held at Fort Worth, Tex., 1890.	Rec. II, 33	Circ. 14	Rec. IX, 392
Bul. on Animal Parasites of Sheep, Rec. II, 79		Circ. 17	Rec. IX, 569
Spec. Rpt. on Diseases of the Horse, 1890.	Rec. II, 518	Circ. 18	Rec. IX, 590
Cause and Prevention of Swine Plague.	Rec. III, 254	Circ. 19	Rec. IX, 590
Sixth and Seventh An. Rpts., 1889 and 1890.	Rec. III, 729	Circ. 20	Rec. IX, 694
Bul. 1.	Rec. IV, 755	Circ. 21	Rec. IX, 694
Bul. 2.	Rec. IV, 758	Twelfth and Thirteenth An. Rpts., 1895 and 1896.	Rec. IX, 869, 873, 884, 886, 888, 890, 891, 892, 893, 894, 898
Bul. 3.	Rec. V, 511	Bul. 19.	Rec. X, 393
Bul. 4.	Rec. V, 693	Bul. 20.	Rec. X, 488
Bul. 5.	Rec. V, 608	Bul. 21.	Rec. X, 793
Eighth and Ninth An. Rpts., 1891 and 1892.	Rec. V, 608	Bul. 22.	Rec. X, 793
Bul. 6.	Rec. VI, 243	Circ. 22.	Rec. X, 98
Bul. 7.	Rec. VI, 844	Circ. 23.	Rec. X, 396
Bul. 8.	Rec. VII, 524	Circ. 24.	Rec. X, 593
Bul. 9.	Rec. VII, 526	Circ. 25.	Rec. X, 791
Bul. 10.	Rec. VIII, 81, 83	Fourteenth An. Rpt., 1897.	Rec. X, 992, 998, 999
Bul. 11.	Rec. VIII, 162	Bul. 23.	Rec. XI, 89
Tenth and Eleventh An. Rpts., 1893 and 1894.	Rec. VIII, 626	Circ. 26.	Rec. XI, 390
Bul. 12.	Rec. VIII, 1015	Fifteenth An. Rpt., 1898.	Rec. XI, 909, 972, 976, 979, 983, 984, 987, 988, 991, 994, 995, 996, 997, 998, 999
Bul. 13.	Rec. VIII, 926, 931	Bul. 24.	Rec. XII, 89
Bul. 14.	Rec. IX, 88	Bul. 25.	Rec. XII, 789
Bul. 15.	Rec. IX, 89	Bul. 26.	Rec. XII, 986
Bul. 16.	Rec. IX, 279	Bul. 27.	Rec. XII, 1077
Bul. 17.	Rec. IX, 291	Circ. 27.	Rec. XII, 90
Bul. 18.	Rec. IX, 278	Circ. 28.	Rec. XII, 95
		Circ. 29.	Rec. XII, 92
		Circ. 30.	Rec. XII, 395
		Circ. 31.	Rec. XII, 597

Division of Biological Survey.

Bul. 1	Rec. I, 108	North Amer. Fauna, No. 8.	Rec. VI, 787
North Amer. Fauna, Nos. 1 and 2, 1889.	Rec. I, 109	Bul. 5.	Rec. VII, 20
North Amer. Fauna, No. 3.	Rec. II, 179	Bul. 6.	Rec. VII, 840
North Amer. Fauna, No. 4.	Rec. II, 258	Bul. 7.	Rec. VII, 470
North Amer. Fauna, No. 5.	Rec. III, 184	North Amer. Fauna, No. 10, ^b	Rec. VIII, 960
Bul. 2	(^a)	North Amer. Fauna, No. 11,	Rec. VIII, 960
Bul. 3.	Rec. IV, 852	North Amer. Fauna, No. 12,	Rec. VIII, 961
Bul. 4.	Rec. V, 416		
North Amer. Fauna, No. 7 ^b .	Rec. V, 90		

^a Report on Bird Migration in the Mississippi Valley in the Years 1884 and 1885, W. W. Cooke (pp. 313, map 1).—Issued in 1888, previous to the publication of the Record.

^b Nos. 6 and 9 not issued.

Division of Biological Survey—Continued.

	Volume and page.		Volume and page.
North Amer. Fauna, No. 13.	Rec. IX, 924	Bul. 12	Rec. XII, 616
Bul. 8	Rec. X, 23	Bul. 13	Rec. XII, 828
Bul. 8 (rev.)	Rec. X, 25	Bul. 14	Rec. XII, 831
Bul. 9.....	Rec. X, 726	Circ. 28	Rec. XII, 617
Bul. 10.....	Rec. X, 724	Circ. 29	Rec. XII, 617
Bul. 11.....	Rec. X, 723	Circ. 30	Rec. XII, 830
Circ. 17.....	Rec. X, 198	Circ. 31	Rec. XII, 830
North Amer. Fauna, No. 14.	Rec. XI, 428	North Amer. Fauna, No. 17.	Rec. XII, 422
North Amer. Fauna, No. 15.	Rec. XI, 492	North Amer. Fauna, No. 18.	Rec. XII, 617
North Amer. Fauna, No. 16.	Rec. XI, 428	North Amer. Fauna, No. 19.	Rec. XII, 830

Division of Botany.

Bul. 8.....	Rec. I, 168	Contrib. Nat. Herb., III, No. 6,	
Bul. 9.....	Rec. I, 169		Rec. VII, 751
Bul. 10.....	Rec. I, 170	Contrib. Nat. Herb., III, No. 7,	
Bul. 11.....	Rec. II, 32		Rec. VIII, 107
Contrib. Nat. Herb., I, Nos. 1 and 2,		Contrib. Nat. Herb., III, No. 8,	
	Rec. II, 79		Rec. VIII, 291
Bul. 12, Pt. I.....	Rec. II, 259	Contrib. Nat. Herb., III, No. 9,	
Contrib. Nat. Herb., I, No. 3.	Rec. II, 303		Rec. VIII, 289, 291
Contrib. Nat. Herb., I, No. 4,		Bul. 18	Rec. IX, 328
	Rec. III, 103	Circ. 10	Rec. IX, 653
Contrib. Nat. Herb., II, No. 1,		Circ. 11	Rec. IX, 652
	Rec. III, 103	Circ. 12	Rec. IX, 649
Bul. 12, Pt. II.....	Rec. III, 548	Circ. 13	Rec. IX, 649
Contrib. Nat. Herb., III, No. 1,		Contrib. Nat. Herb., V, No. 1,	
	Rec. III, 631		Rec. IX, 327
Contrib. Nat. Herb., I, No. 5.	Rec. IV, 374	Contrib. Nat. Herb., V, No. 2,	
Contrib. Nat. Herb., I, No. 6.	Rec. IV, 580		Rec. IX, 623
Contrib. Nat. Herb., II, No. 2.	Rec. IV, 84	Contrib. Nat. Herb., V, No. 3,	
Bul. 13, Pt. I.....	Rec. IV, 498		Rec. IX, 623
Bul. 13, Pt. II.....	Rec. IV, 951	Bul. 16 (rev.)	Rec. X, 47
Bul. 14	Rec. III, 415	Bul. 19	Rec. X, 236
Contrib. Nat. Herb., I, No. 7.	Rec. V, 90	Bul. 20	Rec. X, 516
Contrib. Nat. Herb., I, No. 8.	Rec. V, 326	Circ. 13 (rev.)	Rec. X, 47
Bul. 15.....	Rec. VI, 144	Circ. 14	Rec. X, 54
Bul. 16.....	Rec. VI, 886	Circ. 15	Rec. X, 151
Contrib. Nat. Herb., I, No. 9.	Rec. VI, 777	Circ. 16.....	Rec. X, 1012
Contrib. Nat. Herb., II, No. 3,		Bul. 21	Rec. XI, 51
	Rec. VI, 114	Circ. 17	Rec. XI, 497
Contrib. Nat. Herb., III, No. 2,		Circ. 18	Rec. XI, 748
	Rec. VI, 190	Circ. 19	Rec. XI, 725
Contrib. Nat. Herb., IV... Rec. VI, 113		Circ. 20	Rec. XI, 1047
Bul. 17.....	Rec. VII, 779	Circ. 21	Rec. XI, 1047
Contrib. Nat. Herb., III, No. 3,		Circ. 22	Rec. XI, 1047
	Rec. VII, 370	Inventory 1.....	Rec. XI, 319
Contrib. Nat. Herb., III, No. 4,		Inventory 2.....	Rec. XI, 319
	Rec. VII, 465	Inventory 3.....	Rec. XI, 319
Contrib. Nat. Herb., III, No. 5,		Inventory 4.....	Rec. XI, 319
	Rec. VII, 657	Inventory 5.....	Rec. XI, 1015

Division of Botany—Continued.

	Volume and page.		Volume and page.
Inventory 6	Rec. XI, 1015	Circ. 27	Rec. XII, 458
Bul. 22	Rec. XII, 46	Circ. 28	Rec. XII, 646
Bul. 23	Rec. XII, 45	Circ. 29	Rec. XII, 941
Bul. 24	Rec. XII, 347	Contrib. Nat. Herb., V, No. 4,	
Circ. 18 (rev.)	Rec. XII, 758		Rec. XII, 24
Circ. 23	Rec. XII, 248	Contrib. Nat. Herb., V, No. 5,	
Circ. 24	Rec. XII, 251		Rec. XII, 720
Circ. 25	Rec. XII, 251	Inventory 7	Rec. XII, 911
Circ. 26	Rec. XII, 231		

Division of Chemistry.

Bul. 13, Pt. 5	Rec. I, 238	Bul. 43	Rec. VI, 614
Bul. 13, Pt. 6	Rec. III, 814	Bul. 44	(<i>b</i>)
Bul. 13, Pt. 7	Rec. IV, 77	Bul. 45	Rec. VII, 396
Bul. 13, Pt. 8	Rec. V, 219	Bul. 46	Rec. VII, 921
Bul. 21	Rec. I, 235	Bul. 47	Rec. VIII, 26
Bul. 22	Rec. I, 235	Bul. 48	Rec. VIII, 132
Bul. 23	Rec. I, 236	Bul. 49	Rec. IX, 226
Bul. 24	Rec. I, 237	Circ. 1	Rec. IX, 594
Bul. 25	Rec. I, 237	Circ. 2	Rec. VIII, 863
Bul. 26	Rec. I, 300	Circ. 3	Rec. IX, 543
Bul. 27	Rec. II, 181	Circ. 4	Rec. IX, 808
Bul. 28	Rec. II, 608	Bul. 13, Pt. IX	Rec. X, 872
Bul. 29	Rec. II, 747	Bul. 50	Rec. X, 624
Bul. 30	Rec. II, 748	Bul. 51	Rec. X, 606
Bul. 31	Rec. III, 632	Bul. 52	Rec. X, 749
Bul. 32	Rec. III, 815	Bul. 53	Rec. X, 877
Bul. 33	Rec. IV, 78	Bul. 54	Rec. X, 819
Bul. 34	Rec. IV, 81	Bul. 55	Rec. X, 832
Bul. 35	Rec. IV, 580	Bul. 46 (rev.)	Rec. XI, 509
Bul. 36	Rec. IV, 671	Bul. 56	Rec. XI, 310
Bul. 37	Rec. IV, 951	Bul. 57	Rec. XI, 1007
Bul. 38	Rec. V, 510	Circ. 5	Rec. XI, 67
Bul. 39	Rec. V, 1004	Bul. 58	Rec. XII, 994
Bul. 40	(<i>a</i>)	Bul. 59	Rec. XII, 994
Bul. 41	Rec. VI, 573	Circ. 6	Rec. XII, 745
Bul. 42	Rec. VI, 573		

Division of Entomology.

Bul. 21	Rec. I, 301	Insect Life, III, No. 5	Rec. II, 455
Bul. 22	Rec. II, 80	Bul. 7	Rec. II, 609
Insect Life, III, No. 1	Rec. II, 179	Insect Life, III, No. 6	Rec. II, 673
Insect Life, III, No. 2	Rec. II, 258	Insect Life, III, No. 7	Rec. II, 746
Insect Life, III, No. 3	Rec. II, 303	Insect Life, III, No. 8	Rec. II, 746
Insect Life, III, No. 4	Rec. II, 455	Circ. 1 (2. s.)	Rec. II, 747

^aRecord of Experiments with Sorghum in 1893. H. W. Wiley (pp. 38).—A description of the culture and chemical work with sorghum at Medicine Lodge, Kans., the pedigreeing of seed, and progress in the development of standard varieties; together with a report on growing sorghum in Spain from the Department's seed.

^bSweet Cassava; its Culture, Properties, and Uses. H. W. Wiley (pp. 16, pls. 2, fig. 1).—Notes on the use of cassava as food, a comparison of starch from cassava and from corn, description of cassava culture, and observations on its agricultural possibilities.

Division of Entomology—Continued.

	Volume and page.		Volume and page.
Insect Life, III, No. 9	Rec. III, 53	Bul. 2 (tech. s.)	Rec. VIII, 148
Insect Life, III, No. 10	Rec. III, 53	Bul. 3 (tech. s.)	Rec. VIII, 148
Bul. 23	Rec. III, 53	Bul. 4 (tech. s.)	Rec. VIII, 610
Bul. 24	Rec. II, 746	Bibliography of the More Important Contributions to American Entomology, V.....	Rec. VIII, 614
Bul. 25	Rec. III, 55	Bul. 4 (n. s.)	Rec. IX, 62
Circ. 2 (2. s.)	Rec. III, 55	Bul. 5 (n. s.)	Rec. IX, 252
Insect Life, III, No. 11 ...	Rec. III, 183	Bul. 6 (n. s.)	Rec. IX, 660
Insect Life, III, No. 12 ...	Rec. III, 183	Bul. 7 (n. s.)	Rec. IX, 666
Insect Life, IV, No. 1.....	Rec. III, 326	Bul. 8 (n. s.)	Rec. IX, 852
Insect Life, IV, No. 2.....	Rec. III, 326	Bul. 5 (tech. s.)	Rec. IX, 258
Insect Life, IV, No. 3.....	Rec. III, 414	Bul. 6 (tech. s.)	Rec. IX, 670
Insect Life, IV, No. 4.....	Rec. III, 414	Circ. 13 (2. s.)	Rec. IX, 775
Bul. 6 (2. ed.)	Rec. III, 415	Circ. 19 (2. s.)	Rec. IX, 260
Insect Life, IV, No. 5.....	Rec. III, 546	Circ. 20 (2. s.)	Rec. IX, 261
Insect Life, IV, No. 6.....	Rec. III, 546	Circ. 21 (2. s.)	Rec. IX, 261
Insect Life, IV, No. 7.....	Rec. III, 811	Circ. 22 (2. s.)	Rec. IX, 260
Insect Life, IV, No. 8.....	Rec. III, 811	Circ. 23 (2. s.)	Rec. IX, 675
Bul. 26	Rec. IV, 203	Circ. 24 (2. s.)	Rec. IX, 674
Bul. 27	Rec. III, 907	Circ. 25 (2. s.)	Rec. IX, 674
Insect Life, IV, No. 9.....	Rec. IV, 82	Circ. 26 (2. s.)	Rec. IX, 673
Insect Life, IV, No. 10.....	Rec. IV, 82	Bul. 9 (n. s.)	Rec. X, 60
Insect Life, IV, No. 11.....	Rec. IV, 283	Bul. 10 (n. s.)	Rec. X, 565, 568, 569, 570, 571
Insect Life, IV, No. 12.....	Rec. IV, 283	Bul. 11 (n. s.)	Rec. X, 370
Insect Life, V, No. 1.....	Rec. IV, 372	Bul. 12 (n. s.)	Rec. X, 370
Insect Life, V, No. 2.....	Rec. IV, 666	Bul. 13 (n. s.)	Rec. X, 375
Insect Life, V, No. 3.....	Rec. IV, 668	Bul. 14 (n. s.)	Rec. X, 1071
Insect Life, V, No. 4.....	Rec. IV, 851	Bul. 15 (n. s.)	Rec. X, 1069
Bul. 28	Rec. IV, 760	Bul. 16 (n. s.)	Rec. X, 1074
Bul. 29	Rec. IV, 760	Bul. 17 (n. s.)	Rec. X, 1058
Bul. 30	Rec. V, 100	Bul. 18 (n. s.)	Rec. X, 1061
Bul. 31	Rec. V, 328	Bul. 7 (tech. s.)	Rec. X, 66
Circ. 3 (2. s.)	Rec. V, 1088	Circ. 27 (2. s.)	Rec. X, 159
Insect Life, V, No. 5.....	Rec. V, 327	Circ. 28 (2. s.)	Rec. X, 169
Insect Life, VI, No. 1.....	Rec. V, 514	Circ. 29 (2. s.)	Rec. X, 469
Insect Life, VI, No. 2.....	Rec. V, 514	Circ. 30 (2. s.)	Rec. X, 469
Insect Life, VI, No. 3.....	Rec. V, 900	Circ. 31 (2. s.)	Rec. X, 658
Bul. 32	Rec. VI, 312	Circ. 32 (2. s.)	Rec. X, 655
Bul. 33	Rec. VI, 916	Circ. 33 (2. s.)	Rec. X, 659
Insect Life, VI, Nos. 4 and 5.	Rec. VI, 439, 440	Circ. 34 (2. s.)	Rec. X, 654
Insect Life, VII, No. 1....	Rec. VI, 562	Circ. 35 (2. s.)	Rec. X, 654
Insect Life, VII, No. 2....	Rec. VI, 650	Circ. 36 (2. s.)	Rec. X, 655
Insect Life, VII, No. 3....	Rec. VI, 739	Circ. 37 (2. s.)	Rec. X, 1075
Insect Life, VII, No. 4....	Rec. VI, 1001	Bibliography of the More Important Contributions to American Economic Entomology, VI.	Rec. X, 470
Bul. 1 (tech. s.)	Rec. VII, 516	Bul. 19 (n. s.)	Rec. XI, 362
Bibliography of the More Important Contributions to American Entomology, IV.....	Rec. VII, 147	Bul. 20 (n. s.)	Rec. XI, 950
Bul. 1 (n. s.)	Rec. VIII, 413	Bul. 4 (n. s., rev.)	Rec. XII, 67
Bul. 2 (n. s.)	Rec. VIII, 414		
Bul. 3 (n. s.)	Rec. VIII, 500		

Division of Entomology—Continued.

	Volume and page.		Volume and page.
Bul. 21 (n. s.)	Rec. XII, 64	Bul. 26 (n. s.)	Rec. XII, 860
Bul. 22 (n. s.)	Rec. XII, 160	Bul. 8 (tech. s.)	Rec. XII, 469
Bul. 23 (n. s.)	Rec. XII, 361	Circ. 40 (2. s.)	Rec. XII, 68
Bul. 24 (n. s.)	Rec. XII, 774	Circ. 41 (2. s.)	Rec. XII, 775
Bul. 25 (n. s.)	Rec. XII, 768	Circ. 42 (2. s.)	Rec. XII, 869

Division of Forestry.

Bul. 3	Rec. I, 109	Bul. 17	Rec. X, 643
Bul. 5	Rec. III, 104	Bul. 18	Rec. X, 643
Bul. 6	Rec. III, 729, 908	Bul. 19	Rec. X, 642
Bul. 7	Rec. V, 94	Bul. 20	Rec. X, 966
Bul. 8	Rec. V, 96	Bul. 21	Rec. X, 927
Bul. 9	Rec. VII, 164	Circ. 18	Rec. X, 195
Bul. 10	Rec. VII, 774	Circ. 19	Rec. X, 441
Bul. 11	Rec. VII, 774	Circ. 20	Rec. X, 442
Bul. 12	Rec. VII, 869	Circ. 21	Rec. X, 443
Bul. 13	Rec. VIII, 602, 604; Rec. IX, 842	Bul. 22	Rec. XI, 746
Bul. 14	Rec. IX, 452	Bul. 23	(a)
Circ. 12	Rec. VIII, 135	Bul. 24	Rec. XI, 855
Circ. 14	Rec. IX, 452	Bul. 25	Rec. XI, 853
Circ. 15	Rec. IX, 294	Bul. 26	Rec. XI, 938
Circ. 16	Rec. IX, 651	Circ. 22	Rec. XI, 745
Circ. 17	Rec. IX, 652	Bul. 27	Rec. XII, 452
Bul. 15	Rec. X, 52	Bul. 28	Rec. XII, 754
Bul. 16	Rec. X, 51	Bul. 29	Rec. XII, 956

Division of Gardens and Grounds.

Papers on Horticultural and Kin- dred Subjects	Rec. III, 107	Circ. 1	Rec. IX, 450
---------------------------------------------------------	---------------	---------------	--------------

Division of Microscopy.

Food Products, III, 1893	Rec. V, 611
--------------------------------	-------------

Division of Pomology.

Bul. 3	Rec. II, 258	Circ. 2	Rec. IX, 650
Bul. 4	Rec. II, 749	Circ. 3	Rec. IX, 650
Nut Culture in the United States ...	Rec. VIII, 229	Rpt. of the Pomologist, 1895 ..	Rec. IX, 51, 52
Bul. 5	Rec. IX, 135	Bul. 7	Rec. X, 552
Bul. 6	Rec. IX, 648	Bul. 8	Rec. XI, 544
Circ. 1	Rec. IX, 650		

Division of Publications.

List of Publications, 1889-1893	Rec. VI, 87	The Department of Agriculture and Its Work	Rec. X, 397
Bul. 2	Rec. IX, 599	Bul. 5	Rec. XII, 878
Bul. 3	Rec. X, 196		
Bul. 4	Rec. X, 298		

a Not issued.

Division of Soils.

	Volume and page.		Volume and page.
Bul. 1.....	Rec. VII, 483	Bul. 12.....	Rec. X, 30
Bul. 2.....	Rec. VII, 483	Bul. 13.....	Rec. X, 328
Bul. 3.....	Rec. VII, 847	Bul. 14.....	Rec. X, 1026
Bul. 4.....	Rec. VIII, 148	Bul. 15.....	Rec. XI, 325
Bul. 5.....	Rec. VIII, 574	Circ. 3.....	Rec. XI, 912
Bul. 6.....	Rec. IX, 535	Bul. 16.....	Rec. XII, 36
Bul. 7.....	Rec. IX, 535	Circ. 4.....	Rec. XII, 317
Bul. 8.....	Rec. IX, 535	Circ. 5.....	Rec. XII, 335
Bul. 9.....	Rec. IX, 630	Circ. 6.....	Rec. XII, 320
Bul. 10.....	Rec. IX, 732	Circ. 7.....	Rec. XII, 527
Bul. 11.....	Rec. IX, 1035		

Division of Statistics.

Misc. Rpt. 1 (n. s.).....	Rec. I, 299	Rpt. on Farm Animals and Cotton Distribution.....	Rec. IV, 675
Rpt. 81 (n. s.).....	Rec. II, 518	Rpt. on the Distribution and Con- sumption of Corn and Wheat,	
Album of Agricultural Graphics,	Rec. II, 608		Rec. IV, 762
Rpt. 82 (n. s.).....	Rec. II, 609	Misc. Rpt. 5.....	Rec. IV, 844
Rpt. 83 (n. s.).....	Rec. II, 673	Misc. Rpt. 6.....	Rec. IV, 847
Rpt. 84 (n. s.).....	Rec. II, 749	Misc. Rpt. 7.....	Rec. IV, 956
Rpt. 85 (n. s.).....	Rec. III, 53	Spec. Rpt., 1892.....	Rec. IV, 282
Rpt. 86 (n. s.).....	Rec. III, 107	Rpt. 105 (n. s.).....	Rec. V, 221
Rpt. 87 (n. s.).....	Rec. III, 183	Rpt. 106 (n. s.).....	Rec. V, 221
Rpt. 88 (n. s.).....	Rec. III, 253	Rpt. 107 (n. s.).....	Rec. V, 221
Rpt. 89 (n. s.).....	Rec. III, 326	Rpt. 108 (n. s.).....	Rec. V, 221
Rpt. 90 (n. s.).....	Rec. III, 414	Rpt. 109 (n. s.).....	Rec. V, 328
Rpt. 91 (n. s.).....	Rec. III, 543	Rpt. 110 (n. s.).....	Rec. V, 417
Rpt. 92 (n. s.).....	Rec. III, 632	Rpt. 111 (n. s.).....	Rec. V, 611
Rpt. 93 (n. s.).....	Rec. III, 728	Rpt. 112 (n. s.).....	Rec. V, 798
Rpt. 94 (n. s.).....	Rec. III, 813	Rpt. 113 (n. s.).....	Rec. V, 1005
Rpt. 95 (n. s.).....	Rec. III, 903	Rpt. 114 (n. s.).....	Rec. V, 1088
Misc. Rpt. 2.....	Rec. III, 904	Misc. Rpt. 8.....	Rec. V, 798
Misc. Rpt. 3.....	Rec. III, 905	Rpt. 115 (n. s.).....	Rec. VI, 54
Misc. Rpt. 4.....	Rec. III, 906	Rpt. 116 (n. s.).....	Rec. VI, 172
Rpt. 96 (n. s.).....	Rec. IV, 77	Rpt. 117 (n. s.).....	Rec. VI, 347
Rpt. 97 (n. s.).....	Rec. IV, 203	Rpt. 118 (n. s.).....	Rec. VI, 347
Rpt. 98 (n. s.).....	Rec. IV, 282	Rpt. 119 (n. s.).....	Rec. VI, 486
Rpt. 99 (n. s.).....	Rec. IV, 429	Rpt. 120 (n. s.).....	Rec. VI, 582
Rpt. 100 (n. s.).....	Rec. IV, 578	Rpt. 121 (n. s.).....	Rec. VI, 582
Rpt. 101 (n. s.).....	Rec. IV, 675	Rpt. 122 (n. s.).....	Rec. VI, 755
Rpt. 102 (n. s.).....	Rec. IV, 762	Rpt. 123 (n. s.).....	Rec. VI, 943
Rpt. 103 (n. s.).....	Rec. IV, 850	Rpt. 124 (n. s.).....	Rec. VI, 943
Rpt. 104 (n. s.).....	Rec. IV, 957	A Manual of Instructions to Crop Correspondents.....	Rec. VII, 73
Rpt. on Condition of Growing Crops.....	Rec. IV, 283	Bul. 9 (misc. ser.).....	Rec. VII, 259
Rpt. on Condition of Crops.....	Rec. IV, 431	Rpt. 125 (n. s.).....	Rec. VII, 73
Rpt. on Yield of Crops per Acre,		Rpt. 126 (n. s.).....	Rec. VII, 164
	Rec. IV, 500	Rpt. 127 (n. s.).....	Rec. VII, 259
Rpt. on the Crops of the Year,		Rpt. 128 (n. s.).....	Rec. VII, 259
	Rec. IV, 578		

Division of Statistics—Continued.

	Volume and page.	Volume and page.
Rpt. 129 (n. s.)	Rec. VII, 340	Circ. 7..... Rec. IX, 297
Rpt. 130 (n. s.)	Rec. VII, 433	Circ. 8..... Rec. IX, 898
Rpt. 131 (n. s.)	Rec. VII, 531	Bul. 13 (misc. s.)..... Rec. X, 130
Rpt. 132 (n. s.)	Rec. VII, 531	Bul. 14 (misc. s.)..... Rec. X, 197
Rpt. 133 (n. s.)	Rec. VII, 812	Bul. 15 (misc. s.)..... Rec. X, 298
Bul. 10 (misc. s.)	Rec. VIII, 442	Circ. 9..... Rec. X, 846
Bul. 11 (misc. s.)	Rec. VIII, 442	Crop Circ. for May and June, 1898..... Rec. X, 197
Bul. 12 (misc. s.)	Rec. VIII, 937	Crop Circ. for July–Sept., 1898, Rec. X, 397
Rpt. 134 (n. s.)	Rec. VIII, 93	Crop Circ. for Oct., 1898... Rec. X, 697
Rpt. 135 (n. s.)	Rec. VIII, 93	Crop Circ. for Nov., 1898... Rec. X, 697
Rpt. 136 (n. s.)	Rec. VIII, 93	Rpt. 155 (n. s.) Rec. X, 97
Rpt. 137 (n. s.)	Rec. VIII, 93	Bul. 16 (misc. s.) Rec. XI, 41
Rpt. 138 (n. s.)	Rec. VIII, 352	Circ. 10..... Rec. XI, 698
Rpt. 139 (n. s.)	Rec. VIII, 352	Circ. 11 Rec. XI, 698
Rpt. 140 (n. s.)	Rec. VIII, 352	Crop Circ. for May, 1899... Rec. XI, 397
Rpt. 141 (n. s.)	Rec. VIII, 536	Crop Circ. for June, 1899... Rec. XI, 397
Rpt. 142 (n. s.)	Rec. VIII, 536	Crop Circ. for July, 1899... Rec. XI, 397
Rpt. 143 (n. s.)	Rec. VIII, 536	Crop Circ. for Aug., 1899... Rec. XI, 397
A Manual of Instructions to Crop Correspondents.....	Rec. VIII, 352	Crop Circ. for Sept., 1899... Rec. XI, 898
Rpt. 144 (n. s.)	Rec. IX, 197	Crop Circ. for Oct., 1899... Rec. XI, 698
Rpt. 145 (n. s.)	Rec. IX, 198	Crop Circ. for Nov., 1899... Rec. XI, 898
Rpt. 146 (n. s.)	Rec. IX, 198	Rpt. 156 (n. s.) Rec. XI, 397
Rpt. 147 (n. s.)	Rec. IX, 198	Bul. 17 (misc. s.) Rec. XII, 399
Rpt. 148 (n. s.)	Rec. IX, 297	Circ. 12 Rec. XII, 698
Rpt. 149 (n. s.)	Rec. IX, 297	Circ. 13..... Rec. XII, 798
Rpt. 150 (n. s.)	Rec. IX, 297	Crop Circ. for Apr., 1900... Rec. XII, 298
Rpt. 151 (n. s.)	Rec. IX, 397	Crop Reporter, Vol. II, Nos. 1–3, Rec. XII, 398
Rpt. 152 (n. s.)	Rec. IX, 499	Crop Reporter, Vol. II, Nos. 4–6, Rec. XII, 698
Rpt. 153 (n. s.)	Rec. IX, 499	Crop Reporter, Vol. II, Nos. 7–9, Rec. XII, 1098
Rpt. 154 (n. s.)	Rec. IX, 599	
Circ. 3.....	Rec. IX, 296	
Circ. 5.....	Rec. IX, 296	
Circ. 6.....	Rec. IX, 297	

Division of Vegetable Physiology and Pathology.

Journ. of Mycol., V, No. 1..	Rec. I, 169	Bul. 3.....	Rec. IV, 500
Journ. of Mycol., V, No. 2...	Rec. I, 169	Journ. of Mycol., VII, No. 3..	Rec. IV, 954
Journ. of Mycol., V, No. 3...	Rec. I, 169	Bul. 4.....	Rec. V, 98
Journ. of Mycol., V, No. 4...	Rec. I, 170	Bul. 5.....	Rec. VI, 47
Circ. 7.....	Rec. I, 170	Bul. 6.....	Rec. VI, 558
Circ. 8.....	Rec. I, 170	Bul. 7.....	Rec. VI, 432
Journ. of Mycol., VI, No. 1..	Rec. II, 32	Journ. of Mycol., VII, No. 4..	Rec. VI, 555
Journ. of Mycol., VI, No. 2..	Rec. II, 303	Bul. 8.....	Rec. VIII, 58
Journ. of Mycol., VI, No. 3..	Rec. II, 455	Bul. 9.....	Rec. VIII, 315
Journ. of Mycol., VI, No. 4..	Rec. II, 749	Bul. 10.....	Rec. VIII, 497
Journ. of Mycol., VII, No. 1..	Rec. III, 327	Bul. 11.....	Rec. VIII, 607
Journ. of Mycol., VII, No. 2..	Rec. III, 810	Bul. 12.....	Rec. VIII, 895
Bul. 1.....	Rec. III, 485	Bul. 13.....	Rec. IX, 658
Bul. 2.....	Rec. IV, 498	Bul. 14.....	Rec. IX, 658

Division of Vegetable Physiology and Pathology—Continued.

	Volume and page.		Volume and page.
Bul. 15.....	Rec. X, 551	Bul. 19.....	Rec. XII, 460
Circ. 16.....	Rec. X, 560	Bul. 20.....	Rec. XII, 762
Bul. 16.....	Rec. XI, 942	Bul. 21.....	Rec. XII, 765
Bul. 17.....	Rec. XI, 944	Bul. 22.....	Rec. XII, 717
Bul. 18.....	Rec. XI, 1008	Bul. 23.....	Rec. XII, 963
Circ. 17.....	Rec. XI, 259	Bul. 24.....	Rec. XII, 939

Library.

Bul. 20.....	Rec. IX, 840	Bul. 23.....	Rec. X, 397
Bul. 22.....	Rec. X, 198	Bul. 24.....	Rec. X, 643

Office of Experiment Stations.

Bul. 2, Pt. 2, 1891.....	Rec. III, 106	Bul. 38.....	Rec. IX, 160
Misc. Bul. 3.....	Rec. III, 106	Bul. 39.....	(^b)
Bul. 7.....	Rec. III, 813	Bul. 40.....	Rec. IX, 264
Bul. 8.....	Rec. III, 894	Bul. 41.....	Rec. IX, 297
Bul. 9.....	Rec. IV, 201	Bul. 42.....	Rec. IX, 238, 297
Bul. 10.....	Rec. III, 631	Bul. 43.....	Rec. IX, 677
Bul. 11.....	Rec. IV, 582	Bul. 44.....	Rec. IX, 863
Bul. 12.....	Rec. IV, 203	Bul. 45.....	Rec. IX, 1073
Bul. 13.....	Rec. IV, 954	Bul. 46.....	Rec. IX, 1074
Bul. 14.....	Rec. V, 328	Bul. 47.....	Rec. IX, 1098
Bul. 15.....	Rec. V, 518	Bul. 48.....	Rec. IX, 1097
Bul. 16.....	(^a)	Bul. 49.....	Rec. IX, 1099
Bul. 17.....	Rec. V, 416	Bul. 50.....	Rec. IX, 1098
Bul. 18.....	Rec. V, 693	Bul. 51.....	Rec. IX, 1099
Bul. 19.....	Rec. V, 1006	Circ. 25 (rev.).....	Rec. IX, 643
Bul. 20.....	Rec. VI, 486	Circ. 28.....	Rec. IX, 241
Bul. 21.....	Rec. VII, 148	Circ. 28 (rev.).....	Rec. IX, 643
Bul. 22.....	Rec. VII, 372, 380, 385, 387, 390, 398, 415	Circ. 29.....	Rec. IX, 298
Bul. 23.....	Rec. VII, 433	Circ. 30.....	Rec. IX, 298
Bul. 24.....	Rec. VII, 433	Circ. 31.....	Rec. IX, 298
Bul. 25.....	Rec. VII, 428	Circ. 32.....	Rec. IX, 298
Bul. 26.....	Rec. VII, 432	Circ. 34.....	Rec. IX, 143
Bul. 27.....	Rec. VIII, 92	Circ. 35.....	Rec. IX, 197
Bul. 28.....	Rec. VIII, 426	Circ. 36.....	Rec. IX, 197
Bul. 29.....	Rec. VIII, 419	Circ. 37.....	Rec. IX, 499
Bul. 30.....	Rec. VIII, 536	Bul. 45 (rev.).....	Rec. X, 780
Bul. 31.....	Rec. VIII, 509	Bul. 52.....	Rec. X, 173
Bul. 32.....	Rec. VIII, 614	Bul. 53.....	Rec. X, 171
Bul. 33.....	Rec. VIII, 686	Bul. 54.....	Rec. X, 573
Bul. 34.....	Rec. VIII, 662, 664	Bul. 55.....	Rec. X, 976
Bul. 35.....	Rec. IX, 78	Circ. 38.....	Rec. X, 599
Bul. 36.....	Rec. IX, 97	List of Publications of the Office of Experiment Stations on the Food and Nutrition of Man....	Rec. X, 281
Bul. 37.....	Rec. IX, 162		

^a Proceedings of the Sixth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations, held at New Orleans, La., Nov. 15-19, 1892.—An account of this convention was given as a leading article in E. S. R., IV, p. 397.

^b Organization Lists of the Agricultural Experiment Stations and Institutions with Courses in Agriculture in the United States, 1897 (pp. 96).—Not abstracted.

Office of Experiment Stations—Continued.

	Volume and page.		Volume and page.
Bul. 28 (rev.)	Rec. XI, 379	Circ. 42.....	Rec. XI, 799
Bul. 56	Rec. XI, 79	Circ. 43.....	Rec. XI, 777
Bul. 57	Rec. XI, 23	Irrigation Investigations Schedule 1,	
Bul. 58	Rec. XI, 95		Rec. XI, 798
Bul. 59	Rec. XI, 98	Irrigation Investigations Schedule 2,	
Bul. 60	Rec. XI, 96		Rec. XI, 798
Bul. 61	Rec. XI, 98	Bul. 74.....	Rec. XII, 198
Bul. 62	Rec. XI, 28, 31, 42, 98	Bul. 75	Rec. XII, 168
Bul. 63	Rec. XI, 372	Bul. 76	Rec. XII, 198
Bul. 64	Rec. XI, 397	Bul. 77	Rec. XII, 275
Bul. 65	Rec. XI, 397	Bul. 78	Rec. XII, 298
Bul. 66	Rec. XI, 374	Bul. 79	Rec. XII, 298
Bul. 67	Rec. XI, 767	Bul. 80	Rec. XII, 297
Bul. 68	Rec. XI, 777	Bul. 81	Rec. XII, 295
Bul. 69	Rec. XI, 770	Bul. 82	Rec. XII, 630
Bul. 70	Rec. XI, 798	Bul. 83	Rec. XII, 697
Bul. 71	Rec. XI, 961	Bul. 84	Rec. XII, 677
Bul. 72	Rec. XI, 999	Bul. 85	Rec. XII, 776
Bul. 73.....	Rec. XI, 1093	Bul. 86	Rec. XII, 895
Circ. 39.....	Rec. XI, 98	Bul. 87.....	Rec. XII, 895
Circ. 40.....	Rec. XI, 98	Circ. 44	Rec. XII, 497
Circ. 41.....	Rec. XI, 799		

Office of Fiber Investigations.

Rpt. 3	Rec. III, 108	Rpt. 8	Rec. VIII, 774
Rpt. 4	Rec. IV, 285	Rpt. 9.....	Rec. IX, 328
Rpt. 5	Rec. V, 92	Rpt. 10.....	Rec. X, 541
Rpt. 6	Rec. VI, 207	Rpt. 11.....	Rec. X, 737
Rpt. 7.....	(a)		

Office of Irrigation Inquiry.

Progress Rpt. on Irrigation in the United States	Rec. III, 328
--------------------------------------------------------	---------------

Office of Road Inquiry.

Bul. 1.....	Rec. V, 799	Bul. 13.....	Rec. VII, 257
Bul. 2.....	Rec. V, 1006	Bul. 14.....	Rec. VII, 257
Bul. 3.....	Rec. V, 1007	Bul. 15.....	Rec. VII, 257
Bul. 4.....	Rec. VI, 170	Bul. 16.....	Rec. VII, 258
Bul. 5.....	Rec. VI, 170	Bul. 17.....	Rec. VII, 432
Bul. 6.....	Rec. VI, 170	Bul. 18.....	Rec. VII, 630
Bul. 7.....	Rec. VI, 170	Bul. 19.....	Rec. VIII, 936
Bul. 8.....	Rec. VI, 170	Bul. 20.....	Rec. VIII, 935
Bul. 9.....	Rec. VI, 345	Circ. 24.....	Rec. IX, 698
Bul. 10.....	Rec. VI, 677	Circ. 26.....	Rec. IX, 698
Bul. 11.....	Rec. VI, 942	Circ. 27.....	Rec. IX, 699
Bul. 12.....	Rec. VI, 1029	Circ. 28.....	Rec. IX, 698

^aA Report on the Cultivation of Ramie in the United States, with Statements Concerning the practice in Foreign Countries, Cost of Cultivation and Percentages of Yield, the Machine Question, and Preparation of the Fiber for Manufacture, C. R. Dodge (pp. 63, pls. 5, figs. 7).—A similar but less extended article on this subject by the same author was noted from the Yearbook of the Department (E. S. R., VII, p. 498).

Office of Road Inquiry—Continued.

	Volume and page.		Volume and page.
Circ. 29	Rec. IX, 697	Circ. 32	Rec. XI, 396
Circ. 30	Rec. IX, 1097	Circ. 33	Rec. XI, 396
Bul. 16 (rev.)	Rec. X, 196	Circ. 34	Rec. XII, 296
Circ. 31	Rec. X, 396	Circ. 35	Rec. XII, 697
Circ. 31	Rec. XI, 395		

Office of the Secretary.

Rpt. of the Secretary, 1894.	Rec. VII, 259	Circ. 8	Rec. XII, 935
Circ. 6	Rec. IX, 899	Circ. 9	Rec. XII, 941
Circ. 7	Rec. IX, 898		

Section of Foreign Markets.

Bul. 1	Rec. VII, 164	Circ. 19	Rec. IX, 599
Bul. 1 (suppl.)	Rec. VII, 433	Circ. 20	Rec. IX, 999
Bul. 2	Rec. VII, 259	Bul. 7 (rev.)	Rec. X, 397
Bul. 3	Rec. VII, 259	Bul. 8 (rev.)	Rec. X, 397
Bul. 4	Rec. VII, 433	Bul. 11	Rec. X, 96
Bul. 5	Rec. VII, 531	Bul. 12	Rec. X, 97
Bul. 6	Rec. VII, 812	Bul. 13	Rec. X, 197
Bul. 7	Rec. VIII, 175	Bul. 14	Rec. XI, 198
Bul. 8	Rec. VIII, 637	Bul. 15	Rec. XI, 296
Bul. 9	Rec. XII, 1098	Circ. 21	Rec. XI, 296
Bul. 10	Rec. IX, 999	Bul. 16	Rec. XII, 98
Circ. 13	Rec. IX, 199	Bul. 17	Rec. XII, 98
Circ. 14	Rec. IX, 199	Bul. 18	Rec. XII, 98
Circ. 15	Rec. IX, 397	Bul. 19	Rec. XII, 497
Circ. 16	Rec. IX, 397	Bul. 20	Rec. XII, 798
Circ. 17	Rec. IX, 397	Bul. 21	Rec. XII, 798
Circ. 18	Rec. IX, 397	Circ. 22	Rec. XII, 298

Section of Seed and Plant Introduction.

Circ. 1	Rec. XII, 1044	Circ. 2	Rec. XII, 1043
---------------	----------------	---------------	----------------

Silk Section.

Bul. 1	Rec. I, 302
--------------	-------------

Weather Bureau.

Spec. Rpt. for 1891	Rec. III, 329	Bul. 1	Rec. IV, 198
Mo. Weather Rev., XIX, Nos. 7-9, Rec. III, 486		Bul. 2	Rec. IV, 199
Mo. Weather Rev., XIX, No. 10, Rec. III, 549		Bul. 3	Rec. IV, 276
Mo. Weather Rev., XIX, Nos. 11- 12	Rec. III, 817	Bul. 4	Rec. IV, 371
Mo. Weather Rev., XIX, No. 1, Rec. III, 817		Bul. 5	Rec. IV, 670
Instructions for Voluntary Observ- ers	Rec. III, 817	Bul. 6	Rec. IV, 580
Circulars B and C, Instrument Room	Rec. III, 894	Bul. 7	Rec. IV, 671
		Bul. 8	Rec. IV, 762
		Mo. Weather Rev., XX, Nos. 2-8, Rec. IV, 429	
		Mo. Weather Rev., XX, Nos. 9-12, Rec. IV, 669	
		Bul. 9	Rec. V, 91

Weather Bureau—Continued.

	Volume and page.		Volume and page.
Bul. 10.....	Rec. V, 219	Bul. 11, Pt. 3.....	Rec. VIII, 755
Bul. 11, Pt. 1.....	Rec. V, 1086	Bul. 14.....	Rec. VIII, 34
Suppl. to Mo. Weather Rev., Dec., 1892	Rec. V, 219	Bul. 15.....	Rec. VIII, 34
Mo. Weather Rev., XXI, Nos. 1-6,	Rec. V, 218	Bul. 16.....	Rec. VIII, 30
Mo. Weather Rev., XXI, Nos. 7- 12	Rec. V, 1004	Bul. 17.....	Rec. VIII, 33
Rpt. for 1891-92.....	Rec. V, 694	Bul. 18.....	Rec. VIII, 111
Bul. 11, Pt. 2	Rec. VI, 507,	Climate and Health, II, No. 1,	Rec. VIII, 110
509, 511, 618, 639, 695; VII, 280, 285		Climate and Health, II, No. 2,	Rec. VIII, 207
Bul. 11, Pt. 3.....	Rec. VIII, 755	Departures from Normal Temper- ature and Rainfall.....	Rec. VIII, 110
Bul. 12.....	Rec. VII, 20	Injury from Frost and Methods of Protection.....	Rec. VIII, 109
Bul. 13.....	Rec. VI, 573	Mo. Weather Rev., XXIII, Nos. 10-12.....	Rec. VIII, 110
Bul. B.....	Rec. VI, 19	Mo. Weather Rev., XXIII, No. 13	Rec. VIII, 206
Bul. C.....	Rec. VI, 874	Mo. Weather Rev., XXIV, Nos. 1-3	Rec. VIII, 207
Circ. Aug., 1894.....	Rec. VI, 419	Mo. Weather Rev., XXIV, Nos. 4-7	Rec. VIII, 475
Circ. of Information	Rec. VI, 20	Mo. Weather Rev., XXIV, Nos. 8-11.....	Rec. VIII, 672, 675
Instructions for Obtaining and Transcribing Records from Re- cording Instruments....	Rec. VI, 621	Bul. D.....	Rec. IX, 533
Instructions to Special River Ob- servers of the Weather Bureau,	Rec. VI, 621	Bul. 19	Rec. IX, 425
Snow Charts for Feb., 1895.	Rec. VI, 875	Bul. 20	Rec. IX, 531
Mo. Weather Rev., XXI, No. 13,	Rec. VI, 280	Doc. 119	Rec. IX, 426
Mo. Weather Rev., XXII, Nos. 1-3	Rec. VI, 117	Doc. 122	Rec. IX, 427
Mo. Weather Rev., XXII, Nos. 4-6	Rec. VI, 391	Doc. 124	Rec. IX, 426
Mo. Weather Rev., XXII, Nos. 7-8	Rec. VI, 789	Doc. 125	Rec. IX, 426
Mo. Weather Rev., XXII, Nos. 9-11	Rec. VI, 875	Doc. 126	Rec. IX, 425
Climate and Health, I, No. 1,	Rec. VII, 472	Doc. 130	Rec. IX, 533
Climate and Health, I, Nos. 2-6,	Rec. VII, 932	Doc. 132	Rec. IX, 630
Mo. Weather Rev., XXII, No. 12,	Rec. VII, 98	Doc. 133	Rec. IX, 817
Mo. Weather Rev., XXII, No. 13,	Rec. VII, 472	Doc. 134	Rec. IX, 817
Mo. Weather Rev., XXIII, Nos. 1-7	Rec. VII, 472	Doc. 137	Rec. IX, 817
Mo. Weather Rev., XXIII, No. 8,	Rec. VII, 844	Doc. 138	Rec. IX, 629
Mo. Weather Rev., XXIII, No. 9,	Rec. VII, 844	Doc. 139	Rec. IX, 630
Statistics of State Weather Serv- ices.....	Rec. VII, 932	Doc. 140	Rec. IX, 817
An. Rpt., 1894.....	Rec. VII, 844	Doc. 142	Rec. IX, 817
		Doc. 143	Rec. IX, 816
		Doc. 144	Rec. IX, 817
		Doc. 145	Rec. IX, 816
		Doc. 147	Rec. IX, 817
		Doc. 148	Rec. IX, 817
		Doc. 149	Rec. IX, 817
		Doc. 151	Rec. IX, 817
		Mo. Weather Rev., XXIV, No. 13,	Rec. IX, 29
		Mo. Weather Rev., XXV, Nos. 1-3,	Rec. IX, 50

Weather Bureau—Continued.

	Volume and page.		Volume and page.
Mo. Weather Rev., XXV, Nos.		Bul. 26	Rec. XI, 322
4-6	Rec. IX, 424	Bul. 27	Rec. XI, 621
Mo. Weather Rev., XXV, Nos.		Bul. F	Rec. XI, 621
7-9	Rec. IX, 531	An Advance in Measuring and	
Mo. Weather Rev., XXV, Nos.		Photographing Sounds ..	Rec. XI, 622
10-12	Rec. IX, 814	Climate and Crop Report, Season	
Mo. Weather Rev., XXV, No. 13,		of 1898, Alaska Section ..	Rec. XI, 129
Rec. IX, 926		Climatology of the Isthmus of	
Bul. 21	Rec. X, 26	Panama	Rec. XI, 517
Bul. 22	Rec. X, 326	Hydrology of Lake Minnetonka	
Aneroid Barometers	Rec. X, 827	Watershed	Rec. XI, 223
Instructions for Aerial Observers,		Measurement of Precipitation,	
Rec. X, 327		Rec. XI, 223	
Instructions for Obtaining and Tab-		Met. Chart of the Great Lakes,	
ulating Records from Recording		II, No. 9	Rec. XI, 912
Instruments	Rec. X, 327	Mo. Bul. of River and Flood Serv-	
Instructions for Voluntary Ob-		ice, Oct., 1898	Rec. XI, 223
servers	Rec. X, 1020	Mo. Weather Rev., XXVII, Nos.	
Investigation of the Cyclonic Cir-		1-3	Rec. XI, 221
culation and the Translatory		Mo. Weather Rev., XXVII, Nos.	
Movement of West Indian Hur-		4-6	Rec. XI, 429
ricanes	Rec. X, 327	Mo. Weather Rev., XXVII, Nos.	
Moisture Tables	Rec. X, 419	7-9	Rec. XI, 620
Mo. Rpt. of River and Flood Serv-		Mo. Weather Rev., XXVII, Nos.	
ice, Jan.-Mar., 1898	Rec. X, 125	10-12	Rec. XI, 818
Mo. Rpt. of River and Flood Serv-		Mo. Weather Rev., XXVI, No. 13,	
ice, Apr.-June, 1898	Rec. X, 328	1898	Rec. XI, 29
Mo. Rpt. of River and Flood Serv-		Rpt. of Chief of Weather Bureau,	
ice, July-Sept., 1898	Rec. X, 827	1897-98	Rec. XI, 30
Mo. Weather Rev., XXVI, Nos.		Rpt. of Chief of Weather Bureau,	
1-3	Rec. X, 124	1899	Rec. XI, 621
Mo. Weather Rev., XXVI, Nos.		Variations in Lake Levels and At-	
4-6	Rec. X, 325	mospheric Precipitation ..	Rec. XI, 622
Mo. Weather Rev., XXVI, Nos.		Bul. 28	Rec. XII, 27
7-9	Rec. X, 418	Bul. 29	Rec. XII, 314
Mo. Weather Rev., XXVI, Nos.		Bul. G	Rec. XII, 723
10-12	Rec. X, 1017	Bul. H	Rec. XII, 920
Normal Annual Sunshine and		Anemometer Tests	Rec. XII, 425
Snowfall	Rec. X, 327	Anemometry	Rec. XII, 1018
Rpt. of Chief of Weather Bureau,		Daily River Stages at River Gage Sta-	
1896-97	Rec. X, 328	tions on the Principal Rivers of the	
Rpt. of Chief of Weather Bureau,		United States, Part VI. Rec. XII, 1096	
1898	Rec. X, 827	Mo. Weather Rev., XXVII, No.	
The Probable State of the Sky		13	Rec. XII, 25
along the Path of Total Eclipse		Mo. Weather Rev., XXVIII, Nos.	
of the Sun, May 28, 1900 ..	Rec. X, 827	1-3	Rec. XII, 118
Wrecks and Casualties on the		Mo. Weather Rev., XXVIII, Nos.	
Great Lakes, 1895-1897 ..	Rec. X, 125	4-6	Rec. XII, 520
Bul. 23	Rec. XI, 129	Mo. Weather Rev., XXVIII, No.	
Bul. 24	Rec. XI, 126	7	Rec. XII, 831
Bul. 25	Rec. XI, 223		

Weather Bureau—Continued.

	Volume and page.		Volume and page.
Mo. Weather Rev., XXVIII, No.		Mo. Weather Rev., XXVIII, Nos.	
8.....	Rec. XII, 831, 834	10-12.....	Rec. XII, 1015
Mo. Weather Rev., XXVIII, No.		Rpt. of Chief of Weather Bureau,	
9.....	Rec. XII, 831	1898-99.....	Rec. XII, 831

Under no special headings.

Report on the Use of Maize in Europe.....	Rec. III, 484	Yearbook, 1896.....	Rec. IX, 527, 528, 539, 551, 552, 558, 561, 563, 564, 568, 569, 570, 572, 574, 577, 581, 589, 591, 592, 597, 598, 599
Indian Corn in the Manufacture of Beer.....	Rec. V, 326	Cultivation of Tobacco in Suma- tra.....	Rec. X, 545
Suggestions Regarding the Cook- ing of Food.....	Rec. VI, 331	Spec. Rpt. on the Beet-Sugar In- dustry in the United States, 1897.....	Rec. X, 741
Yearbook, 1894... 467, 469, 470, 471, 474, 476, 489, 492, 498, 500, 508, 510, 512, 514, 515, 522, 523, 526, 529, 531, 532		Yearbook, 1897.....	Rec. X, 516, 521, 522, 523, 541, 542, 549, 551, 555, 570, 582, 598, 599
Yearbook, 1895... Rec. VIII, 750, 751, 755, 756, 780, 781, 789, 791, 792, 793, 794, 795, 796, 803, 804, 821, 827, 831, 832, 836, 837		Rpt. 59.....	Rec. XI, 727
An. Rpts., 1897.....	Rec. IX, 698	Rpt. 60.....	Rec. XI, 729
Misc. Circ. 1.....	Rec. IX, 197	Rpt. 61.....	Rec. XI, 741
Misc. Circ. 2.....	Rec. IX, 198	Rpt. 62.....	Rec. XI, 726
Proceedings of the National Con- vention for the Suppression of In- sect Pests and Plant Diseases by Legislation, held at Washington, Mar. 5-6, 1897.....	675	Yearbook, 1898... Rec. XI, 423, 425, 431, 432, 434, 443, 447, 450, 451, 452, 454, 457, 462, 470, 471, 482, 483, 490, 491, 497, 498	
Protest Against Proposed Legisla- tion Restricting the Experi- ments of the Department of Agri- culture.....	Rec. IX, 195	An. Rpts., 1900.....	Rec. XII, 997
Vivisection in the District of Co- lumbia.....	Rec. IX, 195	Rpt. 63.....	Rec. XII, 235
		Rpt. 64.....	Rec. XII, 522
		Rpt. 65.....	Rec. XII, 545
		Rpt. 66.....	Rec. XII, 781
		Yearbook, 1899.....	Rec. XII, 418, 421, 423, 424, 426, 442, 443, 449, 455, 458, 460, 467, 476, 478, 484, 488, 496, 497

SUBJECT INDEX.

ABBREVIATIONS.—References to Experiment Station Record are indicated by the abbreviation **Rec.**, the number of the volume being given in roman numerals. **Bul. 2** refers to Experiment Station Bulletin No. 2, the digest of the Annual Reports for 1888. This was issued in two parts, indicated by **I** and **II**.

Aabo, Finland, Chemical and Seed Control Station, report, **Rec. X**, 198.
 Aas, Norway, Agricultural College, **Rec. V**, 931; **IX**, 703; **X**, 98.
 Aas, Norway, Plant Physiological Station, **Rec. IX**, 712.
 Abattoir refuse, treatment with sulphuric acid, **Rec. XII**, 131.
 Abbot sphinx, notes, **Rec. VIII**, 147.
Abelmoschus esculentus, notes, **Rec. VI**, 207.
 Aberdeen cows, composition of milk, **Rec. III**, 357.
Aberia kaffra, notes, **Rec. V**, 586; **XI**, 454.
 Aberrations in *Vanessa antiopa*, **Rec. IX**, 965.
Abies—
 arizonica, n. sp., notes, **Rec. VIII**, 315.
 balsamea—
 as affected by *Aecidium elatinum*, **Rec. IX**, 421.
 notes, **Rec. IV**, 655; **V**, 54; **VI**, 143.
 cephalomica, notes, **Rec. VI**, 143.
 concolor, notes, **Rec. II**, 143; **VIII**, 314.
 lasiocarpa, notes, **Rec. VI**, 143.
 nobilis, notes, **Rec. VI**, 143; **VIII**, 136.
 nordmanniana, notes, **Rec. IV**, 655; **V**, 54; **VI**, 143.
 pectinata—
 abnormal bark formation, **Rec. VI**, 196.
 notes, **Rec. V**, 54.
 pinsapo, notes, **Rec. VI**, 143.
 shastensis, notes, **Rec. IX**, 52, 651.
 sibirica, notes, **Rec. II**, 143; **VI**, 143.
 webbiana, notes, **Rec. VI**, 143.
 Abies, resin ducts and strengthening cells, **Rec. XII**, 827.
 Abietineæ, formation of resin deposits, **Rec. IX**, 452.
Ablerus elisiocampie, notes, **Rec. VI**, 562; **IX**, 663.
 Arboriculture school at Paris, **Rec. V**, 131.
 Abortion—
 contagious—
 etiology, **Rec. X**, 497.
 in cows, **Rec. IV**, 75; **VIII**, 522, 928; **IX**, 293; **X**, 893; **XII**, 898.
 sheep, **Rec. IX**, 994.
 notes **Rec. VII**, 712; **XII**, 791.
 treatment, **Rec. XI**, 289.
 work of Prof. Bang, **Rec. XII**, 293.

Abortion—Continued.
 in cows, **Rec. III**, 152; **V**, 734; **VI**, 165; **VII**, 617; **XI**, 696, 995.
 cows, treatment, **Rec. X**, 95, 296, 495, 896; **XI**, 88, 192, 289, 495, 791, 1088.
 domestic animals, **Rec. IX**, 292.
 mares, **Rec. V**, 513, 608.
 mares, infectious, **Rec. III**, 729.
 sheep—
 barrenness and fertility, **Rec. XI**, 792.
 causes and extent of occurrence, **Rec. XI**, 792.
 incubation period, **Rec. XI**, 696.
 smut as a cause of, **Rec. XI**, 495.
 types, **Rec. XI**, 92.
 Abrastol—
 antiseptic, in wines, **Rec. V**, 735.
 in foods, detection, **Rec. VII**, 16.
Abraxas grossulariata, notes, **Rec. VII**, 231; **XII**, 159.
 "Abretic acid," preparation and use, **Rec. V**, 684.
 Abriu, absorption by mucous membranes, **Rec. VII**, 526.
Abroma angusta—
 as a fiber plant, **Rec. VIII**, 125.
 chemical studies, **Rec. VII**, 687.
 Absinthe by-products as a feeding stuff, **Rec. IV**, 873.
 Absorption—
 and transpiration in frosted plants, **Rec. IV**, 517, 680.
 apparatus, Péligot, modification, **Rec. XII**, 515.
 in small intestine, **Rec. IX**, 1079, **X**, 1089.
Abutilon cricenuæ—
 notes, **Rec. III**, 308; **VI**, 207.
 root system, **Rec. IV**, 46.
 Abutilon fiber, notes, **Rec. VI**, 207.
Acacia—
 arabica, planting in Australia, **Rec. X**, 443.
 cunninghami, notes, **Rec. XI**, 220.
 decurrens—
 bark for tanning, **Rec. XII**, 995.
 culture, **Rec. III**, 595.
 notes, **Rec. IV**, 557; **VI**, 775.
 delibrata, notes, **Rec. XI**, 220.
 lebbeck, analyses, **Rec. X**, 678.
 leptophleba, notes, **Rec. IV**, 557.

Acacia—Continued.

- melanoxylon*, rate of growth, Rec. XII, 1048.
- mollissima*—
 - bark for tanning, Rec. XII, 995.
 - in California, Rec. X, 856.
- penninervis*, notes, Rec. XI, 220.
- pycnantha* bark for tanning, Rec. XII, 995.

Acacia pod moth, notes, Rec. IX, 768.

Acacias—

- as forage plants, Rec. XI, 220.
- formation of gum, Rec. VII, 468.

Acalypha virginica, root system, Rec. IV, 46.

Acanthaceus genera, anatomy, Rec. V, 127.

Acanthia bibliography, Rec. XII, 867.

Acanthia lectularia. (See BEDBUG.)

Acanthocephala femorata, notes, Rec. IV, 58.

Acanthocinus nodosus, notes, Rec. IX, 669.

Acanthoderes quadrigibbus, notes, Rec. X, 168.

Acanthostigma frazini, notes, Rec. IV, 956.

Acari, agrarian, Rec. IX, 966.

Acarids of wine, Rec. IX, 895.

Acarina spp., notes, Rec. III, 784.

(See also MITES.)

Acarus—

- folliculorum*, remedies, Rec. XII, 793.
- tetarius*, in tobacco plants, Rec. V, 821.

Accipiter nisus, notes, Rec. IX, 530.

Acclimation fever. (See TEXAS FEVER.)

Acclimatization of plants, Rec. V, 1028; VI, 115; VII, 564, 653; VIII, 671; IX, 726; 1028; XI, 242, 296, 813, 1015.

Acer—

- californicum*, notes, Rec. IX, 563.
- campestre*, notes, Rec. VI, 821; VII, 134.
- dasy carpum*, notes, Rec. II, 512, 663, 741; III, 521; IV, 654; VII, 133; VIII, 314, 604.
- floridanum acuminatum*, notes, Rec. V, 659.
- glabrum*, notes, Rec. III, 521.
- grandidentatum*, notes, Rec. V, 659.
- macrophylla*, notes, Rec. III, 597.
- macrophyllum*, notes, Rec. VII, 133.
- negundo*, notes, Rec. X, 725; XII, 153.
- (See also NEGUNDO and BOX ELDER.)
- nigrum*, notes, Rec. III, 788.
- platanoides*, notes, Rec. IV, 651.
- pseudoplatanus*, rate of growth, Rec. XII, 1048.

rubrum—

- ash analyses, Rec. I, 26.
- notes, Rec. IV, 654.
- saccharinum*, notes, Rec. III, 521; IV, 654; VII, 134; XII, 153.
- saccharum*, notes, Rec. V, 659; XII, 153.
- saccharum barbatum*, notes, Rec. V, 659.
- saccharum nigrum*, notes, Rec. V, 659.
- tartaricum*, notes, Rec. IV, 654.

Acetanilid for muscular rheumatism, Rec. XII, 392.

Acetate of—

- copper v. Bordeaux mixture for grape Peronospora, Rec. X, 364.
- iron for hogs poisoned by cockle seed, Rec. V, 813.

Acetic acid—

- as a preservative, Rec. II, 269.
- bacteria, Rec. V, 650; VII, 20; IX, 627.
- determination, Rec. VII, 272, 650; XII, 214.

Acetic acid—Continued.

effect on—

- germination and growth of peas, Rec. XII, 1009.
- sucrose, Rec. VI, 868.
- fermentation, studies, Rec. IV, 693; VI, 969; VII, 20.
- formation, Rec. III, 924.
- for rose chafers, Rec. III, 171.
- production in milk by lactic-acid bacteria, Rec. XII, 786.
- test, Valenta, Rec. VI, 274.
- tests for butter, Rec. IV, 317.

Acetone, occurrence in plants, Rec. XI, 121.

Acetylene—

- and calcium carbid, Rec. VII, 90.
- illumination, application to country homes, Rec. XII, 697.
- light for polarimetric readings, Rec. VII, 835.
- manufacture waste, analyses, Rec. XII, 931.

Achæa melicerata, notes, Rec. IX, 768.

Acherontia atropos, notes, Rec. VIII, 612, 711.

Achillea—

- millefolium*—
 - notes, Rec. II, 601; III, 52, 629, 893.
 - var. *rosea*, notes, Rec. IV, 653.
- ptarmica*, notes, Rec. IV, 653.

Achilleas, species, Rec. IX, 561, 756.

Achlya racemosa, notes, Rec. IV, 50.

Achorutes nivicola, notes, Rec. VII, 880.

Achraea grisella, notes, Rec. VI, 149.

Achyrachna mollis, notes, Rec. III, 598.

Acid—

- and wood alcohol waste, analyses, Rec. VIII, 877.
- constituents of wine, Rec. IV, 616; VI, 377.
- content of malt, estimation, Rec. VI, 376.
- determination in beer, Rec. IX, 918.
- digestion of soils, vessels for, Rec. V, 511.
- distribution in pears, Rec. XII, 558.
- effect on texture of cheese, Rec. VIII, 729.
- fermentation, relation to butter flavor and aroma, Rec. XI, 388.
- gases, effect on plants, Rec. XI, 710.
- in butter—
 - removal by heating and washing, Rec. VIII, 89.
 - variation, Rec. IV, 94.
- milk, Rec. IV, 311, 389.
- measure, automatic, for milk tests, Rec. IV, 751.
- number and rancidity of butter, Rec. V, 955, 1023.
- phosphate. (See SUPERPHOSPHATE.)
- potassium tartrate for standardizing solutions, Rec. V, 817.
- production by soil bacteria, Rec. XII, 730.
- solutions—
 - effect on phosphates in soil, Rec. XI, 131.
 - standardization, Rec. V, 511; VI, 182; VII, 91, 185.

Acidimeter—

- Dornie's, for milk examination, Rec. V, 440, 928.
- in dairying, Rec. V, 440, 541.

- Acidimetry**—
and alkalimetry, new methods, *Rec.* VII, 17.
method for approximate determinations,
Rec. IX, 1024.
notes, *Rec.* XI, 813.
- Acids**—
behavior in petioles of rhubarbs, *Rec.* IX, 329.
determination in vinegar, *Rec.* V, 647.
effect on action of saliva, *Rec.* XII, 1077.
normal—
preparation, *Rec.* XII, 715.
preparation by electrolysis of copper sul-
phate, *Rec.* XII, 716.
titration, *Rec.* XII, 308.
separation of solid and fatty, *Rec.* VI, 868.
toxic effect on lupines, *Rec.* XII, 1010.
- Acotoides emertonii*, n. sp., notes, *Rec.* III, 548.
- Aconite*, notes, *Rec.* IV, 47; X, 516.
- Aconitum**—
columbianum, notes, *Rec.* X, 516.
fischeri, notes, *Rec.* IV, 47.
- Aconitum* in North America, *Rec.* XI, 709.
- Acoptus suturealis*, notes, *Rec.* X, 168.
- Acorn**—
bread, food value, *Rec.* XII, 78.
meal, food value, *Rec.* XII, 78.
- Acorns**—
analyses, *Rec.* X, 1086.
cattle poisoning by, *Rec.* VI, 472.
destruction by *Gastropacha quercus*, *Rec.* XI,
371.
experiments in storing, *Rec.* XII, 958.
food value, *Rec.* XII, 78.
for pigs, *Rec.* X, 1086.
germination as affected by age, *Rec.* VI, 550;
VII, 407.
insects affecting, *Rec.* VI, 440.
preservation, *Rec.* VII, 962.
tannin, *Rec.* VIII, 290.
- Acromoniella verrucosa*, notes, *Rec.* VIII, 380; IX,
227.
- Acronium* sp., notes, *Rec.* V, 192.
- Acridiidae**—
of New England, notes, *Rec.* IX, 470.
New Zealand, notes, *Rec.* XI, 766.
remedies, *Rec.* XI, 658.
- Acridium*. (*See also* LOCUSTS.)
frontalis, notes, *Rec.* IV, 760.
obscurum on cranberry bogs, *Rec.* IV, 565.
peregrinum—
notes, *Rec.* XI, 1063; XII, 770.
parasites, *Rec.* VI, 151.
purpuriferum, notes, *Rec.* X, 61.
shoshone, notes, *Rec.* IV, 760.
spp., parasites, *Rec.* VI, 151.
- Acridium*, American, notes, *Rec.* III, 55.
- Acrobasis**—
indiginella, notes, *Rec.* II, 101.
vaccinii, notes *Rec.* I, 134; II, 418; IV, 838;
V, 800.
- Acrocystis batata*, notes, *Rec.* II, 416; VI, 987.
- Acrolein as a germicide, *Rec.* XI, 998.
- Acronycta**—
americana, notes, *Rec.* II, 116.
brumosa, notes, *Rec.* IV, 839.
lepusculina, notes, *Rec.* II, 116.
- Acronycta**—Continued.
oblinita, notes, *Rec.* II, 116, 315; IV, 839; IX,
370.
spinigera, notes, *Rec.* IV, 839.
xylineformis, notes, *Rec.* IV, 839.
- Acronycta of North America, classification of
species, *Rec.* IX, 467.
- Actias luna*, notes, *Rec.* V, 101.
- Actinella linearifolia*, notes, *Rec.* X, 147.
- Actinomeris alternifolia*, analyses, *Rec.* III, 629.
- Actinometer, absolute, *Rec.* X, 327.
- Actinometers, observations with, *Rec.* II, 495;
VIII, 206.
- Actinometric**—
measurements in the Pamirs, *Rec.* XII, 725.
observations—
accuracy, *Rec.* IV, 693.
at Montpellier, *Rec.* IX, 1033.
- Actinometry, paper on, *Rec.* XII, 920.
- Actinomyces**—
development, *Rec.* XI, 893.
genus, studies, *Rec.* VI, 80.
group and bacteria, *Rec.* XI, 494.
morphology, *Rec.* XI, 393.
- Actinomyces**—
farcinicus, notes, *Rec.* XI, 795.
gruberi, n. sp., *Rec.* VI, 333.
laccata, notes, *Rec.* IX, 294.
- Actinomyces**—
etiology, *Rec.* X, 495.
frequency of infection by various channels,
Rec. XI, 1090.
in cattle—
investigations, *Rec.* IV, 748.
notes, *Rec.* II, 168; IV, 360; V, 204, 349, 608;
VII, 66.
treatment, *Rec.* IV, 107.
in hogs, *Rec.* XI, 288.
horses, *Rec.* X, 496.
man, *Rec.* X, 496.
Massachusetts, notes, *Rec.* XI, 1087.
Spain, notes, *Rec.* XI, 288.
spine of a cow, *Rec.* VI, 472.
- inoculation experiments, *Rec.* III, 24; XI,
1088.
- inspection at Chicago stock yards, *Rec.* XII,
290.
- iodid of potash for, *Rec.* VI, 470, 471; XI, 193.
notes, *Rec.* II, 168, 318; X, 296; XI, 91, 285,
498, 995; XII, 488, 684, 885, 892.
- studies, *Bul.* 2, I, 111; *Rec.* VIII, 626, 928;
XII, 92, 290.
- transmission to man, *Rec.* XI, 288, 893.
- treatment, *Rec.* IX, 391, 994; XI, 193, 995;
XII, 790.
- Actinonema rosæ*. (*See* ROSE LEAF, BLACK SPOT.)
- Actol**—
as a disinfectant, *Rec.* IX, 194.
uses, *Rec.* XII, 1095.
- Adalia bipunctata**—
melanism, *Rec.* X, 1060.
notes, *Rec.* VI, 652, 741; VII, 313; VIII, 142.
- Adam's needle, notes, *Rec.* IV, 654.
- Adelges abieticolens*, notes, *Rec.* XII, 580.
- Adelonycteris fuscus*, notes, *Rec.* X, 25.
- Adenin, investigation, *Rec.* III, 748.

Adiantum cuneatum, culture, Rec. I, 37.

Adinonia—

caricollis, notes, Rec. VI, 652; VII, 968; X, 169.

tanacetii, notes, Rec. X, 65.

Adobe hole, notes, Rec. XII, 798.

Adoneta spinuloides, food plants, Rec. IX, 574.

Adoretus umbrosus, notes, Rec. VIII, 911.

Adulterant, new, for milk, Rec. IX, 794.

Adulteration of food. (See Food.)

Adzuki bean—

analyses, Rec. III, 869.

culture experiments, Rec. IV, 154.

Aechmites stussineri, n. sp., notes, Rec. VIII, 808.

Aecidia on Umbelliferae, Rec. XI, 167, 949.

Aecidial spores, germination, Rec. X, 612.

Aeidicoum, n. gen., Rec. IV, 516.

Aecidium—

actae, notes, Rec. XII, 462.

anchuse, notes, Rec. X, 316.

apocyni, notes, Rec. IV, 50.

asperfolii, notes, Rec. VI, 233.

berberidis, notes, Rec. X, 316.

cathartica, notes, Rec. X, 316.

compositarum, notes, Rec. IV, 50.

clatium on fir trees, Rec. V, 257.

euphorbiae, notes, Rec. IV, 50.

fragulae, notes, Rec. X, 316.

fragini, notes, Rec. IV, 50.

gossypii, notes, Rec. VIII, 671.

grossulariae, notes, Rec. IV, 50, 414; V, 193;

VII, 141; X, 561.

juncisiamm, notes, Rec. IV, 50.

lencosperum, notes, Rec. V, 348.

malvestri, notes, Rec. III, 327.

oldenlandianum, notes, Rec. III, 327.

parnassii, notes, Rec. VII, 224.

punctatum parasitic on *Anemone ranunculoides*, Rec. VI, 436.

sambuci, notes, Rec. III, 161.

sphaeraceae, notes, Rec. VII, 278.

spp. in Ohio, Rec. IV, 414.

urticae, notes, Rec. IV, 50.

valerianae, culture experiments, Rec. VII, 563.

verbenae, notes, Rec. IV, 50.

Egaleus bechmani, notes, Rec. XII, 69.

Egeria—

acerni, notes, Bul. 2, II, 92; Rec. VIII, 321; XII, 272.

corni, notes, Rec. IV, 666.

fragini, notes, Rec. II, 664.

pyri, notes, Rec. III, 876; VI, 313.

rubristigma, notes, Rec. IV, 666.

springer, notes, Rec. II, 663, IX, 151.

tipuliformis. (See CURRANT BORER.)

Egeriidae of central Ohio, Rec. IV, 666.

Egopogon geminiflorus, notes, Rec. II, 259.

Egosoma reflexum, notes, Rec. VIII, 506.

Eolosomine, composition, Rec. X, 515.

Eolus pyroblastus, notes, Rec. X, 975.

Aeration—

of milk. (See MILK, AERATION.)

soils. (See SOILS, AERATION.)

Aerators, tests, Rec. III, 891; IV, 363; V, 322, 1034; VII, 717.

Aerial—

observations, Rec. XI, 127, 621.

roots. (See ROOTS.)

Aerobic—

fermentation of manure, Rec. V, 147, 149.

ferments in soils, Rec. IV, 537.

Aerometer with temperature correction scale, Rec. X, 920.

Aeronautical—

committee, report, Rec. XII, 920.

conference, international, Rec. X, 325.

experiments, Rec. XII, 920.

Aeschynomene virginica, notes, Rec. XII, 760.

Aesculus—

glabra, notes, Rec. III, 521; IV, 654.

(See also BUCKEYE.)

hippocastanum, notes, Rec. IV, 654.

(See also HORSE-CHESTNUT.)

pavia, notes, Rec. X, 516.

spp., notes, Rec. VII, 134; VIII, 231.

Aethusa minor, poisonous to cattle, Rec. XI, 796.

Aethytera lineata, notes, Rec. X, 372.

Etrocyx tabacum, notes, Rec. VI, 235.

Afromendoneia, anatomy, Rec. V, 127.

Agalactia, contagious, Rec. XI, 1091.

Agalena navia, notes, Rec. XII, 580.

Agallia—

quadripunctata, notes, Rec. II, 80.

sanguinolenta, notes, Rec. II, 80; III, 784; IV, 667; V, 62.

siceifolia, notes, Rec. II, 734.

uhlcri, notes, Rec. VII, 143.

Agalliasces bractatus, notes, Rec. II, 342.

Agar—

cultures—

isolation of bacteria, Rec. VII, 19.

of algae and amoeba, Rec. IX, 29.

preparation, Rec. VIII, 473; IX, 628.

for bacteriological examination of water, Rec. IX, 924.

preparation, Rec. VII, 19, 279.

Agaries—

edible, culture in Paris, Rec. X, 551.

North American, Rec. I, 169.

Agaricus—

adiposus, notes, Rec. X, 653.

arvensis, notes, Rec. VI, 728; IX, 649; X, 551.

campestris, notes, Rec. V, 803; VI, 728; IX, 526, 649; X, 551.

deliciosus, notes, Rec. V, 611.

gambosus, notes, Rec. VI, 728.

melleus—

affecting chestnuts, Rec. X, 59.

as a cause of pourridie of grapes, Rec. VI, 60.

in forests, Rec. VII, 776.

notes, Rec. V, 611; VII, 965; XI, 469; XII, 360, 464, 573.

on oak roots, Rec. VI, 1000.

parasitism, Rec. XI, 516.

mucidus, notes, Rec. XI, 516.

nudus, notes, Rec. VI, 728.

personatus, notes, Rec. VI, 728.

prunulus orella, notes, Rec. VI, 728.

rubescens, notes, Rec. VI, 728.

squarrosus, notes, Rec. XII, 359.

vaginatus, notes, Rec. VI, 728.

velutipes, biology, Rec. XI, 28.

Agaricus, renamed *Psalliota*, Rec. XI, 709.

- Agave*—
americana—
 notes, **Rec. V**, 94; **VI**, 345.
 sugar content, **Rec. VII**, 271.
decepiens, n. sp., notes, **Rec. V**, 92, 93.
heterocantha, notes, **Rec. V**, 94.
rigida sisalana, notes, **Rec. V**, 92; **VI**, 278; **VII**, 954; **XI**, 443.
 (See also SISAL.)
- Agave*—
 culture—
 and use, **Rec. VI**, 807.
 in Africa, **Rec. XII**, 1044.
 undetermined species, **Rec. V**, 94.
- Agelaius phoeniceus*, notes, **Bul. 2**, II, 93; **Rec. IX**, 670.
- Agelastica*, estivation, **Rec. XI**, 656.
- Agglutination—
 of *Bacillus typhosus*, **Rec. IX**, 692.
 phenomena—
 and the cholera vibrio, **Rec. IX**, 392.
 in glanders, **Rec. IX**, 391.
- Agglutinins—
 relation to lysins in anthrax, **Rec. XI**, 494.
 specific, in bacterial cultures, **Rec. XI**, 493.
- Agio of field crops in India, **Rec. V**, 354.
- Agitator—
 electric, **Rec. X**, 717.
 mechanical, **Rec. VI**, 776.
- Agloaspora taleola* on oaks, **Rec. V**, 926.
- Agonoderus pallipes*, notes, **Bul. 2**, II, 93.
- Agoseris*—
hirsuta, notes, **Rec. III**, 599.
plebeia, notes, **Rec. III**, 599.
- Agraulis vanillae*, notes, **Rec. VII**, 881.
- Agricultural—
 analysis. (See ANALYSIS, METHODS, and specific materials.)
 and dairy instruction, apprenticeships, **Rec. X**, 98.
 Experimental Union of Ontario, meeting, **Rec. VIII**, 444.
 fat industries, analysis of products, **Rec. VIII**, 26.
 industrial conditions in Egypt, **Rec. VIII**, 837.
 plant chemistry, **Rec. XI**, 617.
 appropriation bill, **Rec. II**, 472; **IV**, 114; **VI**, 673; **VII**, 723, **VIII**, 839; **IX**, 901; **X**, 801; **XII**, 803.
 art and natural science, present relations, **Rec. VII**, 73.
 associations—
 in Belgium, **Rec. IX**, 3.
 Portugal, proceedings, **Rec. XI**, 296.
 Scandinavia, **Rec. X**, 198.
 the past, present, and future, **Rec. IX**, 1098.
 bacteriological laboratory—
 at St. Petersburg, report, **Rec. X**, 322, 1016.
 of Russian Department of Agriculture, report, **Rec. XI**, 393.
 botany, publications in France, **Rec. VIII**, 841, 940.
- Agricultural—Continued.
 building—
 at Kansas State Agricultural College, **Rec. XII**, 102.
 the University of Illinois, **Rec. XII**, 604.
 calendars, **Rec. IX**, 599, 1098; **X**, 98.
 changes in central New York, **Rec. V**, 1104.
 charts of—
 Ferte-sous-Jouarre, France, **Rec. VI**, 23, 283.
 Meaux, France, **Rec. VII**, 848.
 chemical—
 laboratory at Helsingfors, report, **Rec. X**, 116.
 station at Köslin, report, **Rec. VII**, 341.
 work in Scandinavia, **Rec. X**, 21.
 chemistry, **Rec. VII**, 271.
 chemistry—
 progress in, **Rec. III**, 831; **V**, 224, 538; **IX**, 115; **X**, 716.
 treatises on, **Rec. III**, 155, 924; **X**, 715.
 climatology station at Juvisy, **Rec. XI**, 821.
 college and experiment station work, **Rec. IX**, 301.
 colleges. (See the respective towns, States, or countries.)
 colleges and Department of the Interior, **Rec. IV**, 402.
 colleges and experiment stations—
 American, conventions. (See ASSOCIATION OF.)
 of the United States, English report on, **Rec. VII**, 1, 72.
 of the United States, German account of, **Rec. VII**, 720.
 colleges—
 as affected by recent Congressional legislation, **Rec. II**, 268.
 courses in, **Rec. VIII**, 550; **IX**, 297.
 domestic science in, **Rec. IX**, 479.
 Government aid, **Rec. III**, 807.
 in Denmark, **Rec. IX**, 709.
 Finland, **Rec. IX**, 704.
 Japan, **Rec. II**, 312.
 Norway, **Rec. IX**, 703.
 Sweden, **Rec. IX**, 706.
 the United States, **Rec. V**, 1006; **VII**, 433; **VIII**, 92; **IX**, 1038; **XI**, 498.
 the United States, types, **Rec. XI**, 498.
 manual labor in, **Rec. III**, 813.
 mechanical instruction in, **Rec. VI**, 264.
 mechanical work in, **Rec. VII**, 433.
 meteorological work at, **Rec. III**, 585.
 mission, **Rec. XI**, 599.
 State aid for, **Rec. IV**, 275.
 statistics for 1897, **Rec. IX**, 701.
 statistics for 1898, **Rec. X**, 1001.
 statistics for 1899, **Rec. XI**, 801.
 vegetable physiology in, **Rec. IX**, 297.
 commission in Hungary, **Rec. IX**, 600.
 conditions in the Russian Baltic provinces, **Rec. XI**, 296.
 congresses at World's Columbian Exposition, **Rec. III**, 141; **IV**, 402; **V**, 269.
 contributions to international commerce, **Rec. II**, 609.

Agricultural—Continued.

- cooperative societies in Belgium, *Rec. XI*, 442.
- Council of Russia, proceedings, *Rec. X*, 398.
- Councilors, Danish State, report, *Rec. VI*, 756.
- counselors in Scandinavia, *Rec. X*, 198.
- courses at experiment stations in Italy, *Rec. IV*, 331.
- depression—
 - at home and abroad, *Rec. VI*, 756.
 - in England, *Rec. IX*, 1099.
- development of Bosnia and Herzegovina, *Rec. V*, 1088.
- education, *Rec. IX*, 297.
- education—
 - address, *Rec. XII*, 599.
 - and research in France, *Rec. VI*, 176.
 - research in Scandinavian countries and Finland, *Rec. IX*, 605, 703.
 - research in the United States, *Rec. VII*, 531.
- development, *Rec. XI*, 397, 999.
- effect on productiveness of labor, *Rec. IX*, 198.
- for farmers, *Rec. III*, 132.
- in Austria, *Rec. IV*, 618; *XII*, 198.
- Belgium, *Rec. IV*, 01 703; *IX*, 597; *XI*, 498.
- Denmark, *Rec. V*, 609, 929; *IX*, 198; *X*, 98, 198.
- England, *Rec. VII*, 340.
- English rural schools, *Rec. XII*, 698.
- Europe, *Rec. VIII*, 546.
- Finland, *Rec. IX*, 605, 703.
- foreign countries, *Rec. XI*, 599.
- France, *Rec. IV*, 785; *XI*, 599.
- Germany, *Rec. VI*, 583, *X*, 98; *XII*, 900.
- Great Britain, *Rec. III*, 435, 659; *V*, 543.
- Ireland, *Rec. XI*, 599.
- Italy, *Rec. IV*, 233, 326.
- Norway, *Rec. IV*, 695.
- Prussia, *Rec. IV*, 224.
- rural schools, *Rec. XI*, 898; *XII*, 199.
- Russia, *Rec. X*, 500.
- Scandinavia, *Rec. VIII*, 546; *IX*, 605, 703.
- Spain, *Rec. X*, 198.
- the United States, *Rec. IV*, 275, 398; *XII*, 497.
- the West Indies, *Rec. XII*, 799.
- notes, *Rec. V*, 942.
- of horticulturists, *Rec. X*, 151.
- paper on, *Rec. IX*, 297.
- reading courses, *Rec. X*, 1.
- technical, in Austria, *Rec. X*, 98.
- technical *v.* general, *Rec. IV*, 398.
- (*See also* AGRICULTURAL INSTRUCTION.)
- electro-technics, *Rec. X*, 1097.
- engineer, ready reference book, *Rec. IX*, 396.
- experimentation, association for, in Saxony, *Rec. IV*, 319.
- experiment stations. (*See* EXPERIMENT STATIONS.)
- exports and imports—
 - Belgian, *Rec. V*, 262.
 - British, *Rec. VII*, 532.
 - Danish, *Rec. IV*, 779; *VI*, 170; *VII*, 340, 993; *IX*, 397.

Agricultural—Continued.

- exports and imports—continued.
 - of the United States, *Rec. V*, 612, 798; *VIII*, 936; *IX*, 199, 999; *XI*, 296; *XII*, 98, 298, 497, 798.
 - Swedish, 1892, *Rec. VI*, 171.
- exports and reciprocity, *Rec. IV*, 578.
- exposition of Kiev, report, *Rec. X*, 1039.
- fairs, how to exhibit at, *Rec. VI*, 300.
- graphics, album, *Rec. II*, 608.
- holdings in Germany, *Rec. X*, 198.
- implements—
 - at Paris Exposition, *Rec. XII*, 1097.
 - improvements, *Rec. XII*, 398.
 - station for testing, at Paris, *Rec. XII*, 398.
 - tests, *Rec. III*, 435; *VI*, 252, 942; *VII*, 257, 531; *VIII*, 352; *X*, 599, 1097; *XI*, 96, 97, 335.
- imports, German, from America, *Rec. V*, 799.
- industries, improvements by steam power, *Rec. VII*, 258.
- institute—
 - at Göttingen, scientific work, *Rec. VII*, 294.
 - national, of France, *Rec. V*, 627.
 - of Göttingen, *Rec. V*, 657.
 - Moscow, report, *Rec. XI*, 296.
 - Mustiala, report, *Rec. IX*, 298, 704.
 - the University of Halle, experiments, *Rec. III*, 209.
 - Ulna, reports, *Rec. VII*, 994; *IX*, 398.
 - (*See also* respective towns or countries.)
- American, *Rec. VII*, 720.
- in Denmark, *Rec. X*, 98, 198.
- Egypt, *Rec. XI*, 1099.
- France, *Rec. III*, 440.
- Japan, report, *Rec. II*, 310.
- institutions. (*See also* the respective countries.)
- instruction—
 - at Oxford, *Rec. VIII*, 837.
 - in New South Wales, *Rec. III*, 836.
 - Russia, *Rec. X*, 197.
 - methods of, *Rec. VII*, 172, 433; *VIII*, 537, 555; *IX*, 298, 499; *X*, 712; *XI*, 98, 799.
 - system, *Rec. X*, 298.
- investigations—
 - at Rothamsted, England, *Rec. VI*, 486.
 - factors in, *Rec. I*, 26.
 - in Alaska, *Rec. XI*, 42; *XII*, 630.
 - Canada, *Rec. I*, 245.
 - Nova Scotia, *Rec. IV*, 108.
 - Switzerland, *Rec. VI*, 681.
 - near Siberian Railway, *Rec. X*, 397.
 - recent methods, *Rec. VI*, 486.
- investigators, suggestions to, *Rec. VIII*, 445.
- laboratories of Belgium, *Rec. V*, 550, 551, 552, 553.
- laws of Colorado, *Rec. VII*, 340.
- libraries in the United States, *Rec. XII*, 497.
- literature—
 - bibliography, *Rec. IX*, 298; *X*, 599.
 - classification, *Rec. XII*, 498.
 - explanation of scientific terms, *Rec. XII*, 199.
 - index, *Rec. III*, 367.
 - of Italy, *Rec. IV*, 241.
 - Poland, *Rec. XI*, 198.
 - text-books, *Rec. V*, 350, 441; *VI*, 756; *VII*, 33, 720; *X*, 898; *XI*, 599.

Agricultural—Continued.

- machinery. (*See* MACHINERY, AGRICULTURAL.)
- maps, *Rec.* VII, 341.
- materials, analysis methods, treatise, *Rec.* XI, 812.
- meteorology—
 - importance, *Rec.* X, 225.
 - notes, *Rec.* XI, 127, XII, 122.
 - principles, *Rec.* VII, 287.
 - treatise, *Rec.* XI, 129.
 (*See also* METEOROLOGY.)
- monograph of the departments of Drome and Gironde, *Rec.* X, 398.
- needs of the South, *Rec.* III, 841.
- organization of Java and Ceylon, *Rec.* XI, 999.
- outlook in Maryland, *Rec.* III, 841.
- possibilities of western Australia, *Rec.* X, 433.
- production—
 - advantages, *Rec.* VI, 172.
 - and prices, *Rec.* X, 599.
 - errors, *Rec.* III, 672.
 - of Mexico, 1889 and 1892, *Rec.* VI, 87.
 - the world, *Rec.* IV, 578.
 - permanency, *Rec.* II, 673.
- products—
 - cost of hauling, in Europe, *Rec.* IX, 699.
 - foreign tariffs on, *Rec.* III, 326.
 - foreign trade, *Rec.* IV, 282.
 - of Porto Rico, *Rec.* XII, 795.
 - statistics, *Rec.* VI, 943.
 (*See also* AGRICULTURAL EXPORTS AND IMPORTS.)
- relations of fertilizers, *Bul.* 2, I, 121.
- salt, analyses, *Rec.* VI, 401.
- school at Ghizeh, Egypt, *Rec.* X, 202.
- school at Spalato, Dalmatia, *Rec.* X, 98.
- schools—
 - and colleges in the United States, *Rec.* V, 1006; VII, 433; VIII, 92; IX, 1098; XI, 498.
 - experiment stations, European, *Rec.* VI, 849.
 - in Belgium, *Rec.* IV, 702; VI, 583.
 - Prussia, *Rec.* V, 262.
 (*See also the respective towns, States, and countries.*)
- science, promotion, *Rec.* X, 198.
- sciences, bibliographical repertory, *Rec.* XII, 199.
- society—
 - Danish Royal, reports, *Rec.* V, 740; VI, 756; VII, 813; X, 98.
 - Finnish Imperial, *Rec.* V, 441.
 - German, *Rec.* III, 932; V, 547, 663; VII, 757; VIII, 737.
 - National, of France, *Rec.* V, 265.
- soils. (*See* SOILS.)
- specialists, courses of study, *Rec.* IV, 395, 398.
- statistics. (*See* STATISTICS.)
- Students' Association, proceedings, *Rec.* XI, 296; XII, 497.
- substances, analysis, *Rec.* IX, 323.
- suggestions to the Waldensians, *Rec.* VII, 300.
- survey of Wyoming, *Rec.* IV, 956.
- syndicates in France, *Rec.* XII, 498.
- zoology, text-book, *Rec.* XI, 427.

Agriculture—

- American, *Rec.* VII, 720, 994.
- American, future of, *Rec.* III, 399.
- and agricultural sciences, list of books on, *Rec.* IX, 298.
- geology, *Rec.* IV, 248.
- horticulture, school of applied, *Rec.* XI, 900.
- meteorology in the Department of Héroult, *Rec.* XI, 599.
- the sciences, teaching, *Rec.* IX, 1099.
- as affected by—
 - agricultural experimentation, *Rec.* IV, 224; VIII, 268.
 - smoke from factories, *Rec.* VII, 813.
- as related to—
 - air and soil, *Rec.* IV, 129.
 - animal physiology, *Rec.* XI, 482.
 - bacteria, *Rec.* X, 335.
 - bacteriology, *Rec.* IV, 111; X, 123.
 - chemistry, *Rec.* IV, 950; V, 569; IX, 97.
 - science, *Rec.* VIII, 268.
 - soil analysis, *Rec.* X, 831.
 - soil bacteria, *Rec.* VIII, 755; XI, 435.
- Belgian National Library, *Rec.* V, 2.
- bibliography, *Rec.* X, 599.
- board of, in Great Britain, *Rec.* V, 740.
- Canadian, chemical work, *Rec.* VIII, 105.
- conservatism in, *Rec.* VIII, 443.
- cooperative, *Rec.* IX, 98.
- cost of production, *Rec.* VII, 810.
- degree at Cambridge, *Rec.* V, 1035.
- department of—
 - and experiment station in Jamaica, *Rec.* XI, 898.
 - Finland, report, *Rec.* X, 798.
 - for the West Indies, *Rec.* XI, 101.
 - ideal, *Rec.* IX, 599.
 - Japan, *Rec.* II, 312; IV, 618.
 - Norway, *Rec.* V, 441; IX, 298; X, 98, 798; XI, 799.
 - Norway, report, *Rec.* X, 98, 798; XI, 799.
 - Queensland, *Rec.* II, 768; III, 70, 270, 436, 580, 753.
 - Sweden, report, *Rec.* XI, 197.
 - United States. (*See* UNITED STATES DEPARTMENT OF AGRICULTURE.)
 - (*See also respective towns, States, and countries.*)
- economic, a new factor in, *Rec.* V, 855.
- electricity in, *Rec.* VII, 809.
- enemies, *Rec.* X, 366, 871.
- extension work in, *Rec.* VII, 433; IX, 315, 699, 999; X, 498, 1098; XI, 799, 1099.
- foreign, notes, *Rec.* II, 518, 749; III, 253, 414, 632; IV, 77, 282, 578; V, 221; VI, 172, 347, 486, 582, 943; VII, 164, 259.
- government aid for, *Rec.* VIII, 353.
- history, *Rec.* VI, 849.
- hydraulic, *Rec.* XII, 898.
- in Alaska, *Rec.* IV, 762; IX, 401, 803.
- America, *Rec.* VI, 486.
- Agora, *Rec.* V, 355.
- Arizona, *Rec.* VIII, 175.
- Australia, *Rec.* XII, 199.
- Bolivia, *Rec.* III, 326.
- Bombay Presidency, report, *Rec.* IX, 999.
- Bosnia, *Rec.* XII, 199.

Agriculture—Continued.

- in Brazil, notes, Rec. II, 749.
 British Honduras, Rec. VI, 756.
 British India, Rec. V, 441.
 Buenos Ayres, Rec. IX, 599.
 Chile, Rec. III, 53; VI, 347.
 China, Rec. V, 798.
 Denmark, Rec. VII, 340, 813; IX, 1098; XI, 197; XII, 98, 498.
 Ecuador, Rec. III, 253.
 England, Rec. III, 435; VII, 341.
 Europe, government direction, Rec. IV, 275.
 Finland, Rec. IX, 199; X, 198, 298; XI, 98.
 France, Rec. IV, 675; VI, 172.
 Germany, Rec. VI, 486; 849; XII, 98, 399.
 Great Britain, Rec. XII, 98.
 Hawaiian Islands, Rec. X, 898; XI, 497.
 Herzegovina, Rec. XII, 199.
 Holland, Rec. XI, 898.
 Iceland, Rec. VII, 812.
 Idaho, relations of meteorology, Rec. V, 857.
 India, Rec. VII, 682; IX, 799, 999; XII, 399.
 Island of Jersey, Rec. IX, 1098.
 Japan, Rec. III, 326; X, 698.
 New Brunswick, Rec. X, 146.
 New Zealand, Rec. V, 929.
 North America, report, Rec. II, 139.
 Norway, Rec. VI, 486; VII, 812, 813; IX, 298; XII, 199.
 Ontario—
 acts relating thereto, Rec. VII, 259.
 progress in, Rec. X, 197.
 Paraguay, Rec. III, 414.
 Peru, Rec. III, 107.
 Porto Rico, Rec. XI, 497, 536.
 Russia, Rec. V, 441, 827; X, 298, 749; XI, 98, 498, 799; XII, 1.
 Sahara of Constantine, Rec. IX, 97.
 Scotland, Rec. XI, 296, 999.
 Skane, Rec. IX, 98.
 South America, Rec. III, 904.
 Sweden, Rec. IX, 298.
 Switzerland, Rec. XII, 898.
 the Caucasus, Rec. V, 221.
 Grand Duchy of Luxemburg, Rec. XII, 898.
 Guianas, Rec. III, 543.
 Kongo, Rec. VI, 849.
 Netherlands, 1890, Rec. V, 262.
 Philippines, Rec. X, 399.
 public schools, Rec. IV, 697.
 Rio Grande Valley, Rec. XII, 397.
 South, Rec. VIII, 267; XI, 397.
 Tropics, Rec. XII, 498.
 United States, Rec. V, 262; VII, 73; XII, 497.
 Yukon district, Rec. X, 97.
 Transcaspian region, Rec. IX, 599.
 Uruguay, Rec. III, 543.
 Victoria, Rec. VII, 532.
 West Virginia, report, Rec. II, 517.
 influence of rainfall and temperature, Rec. VII, 475.

Agriculture—Continued.

- International Congress at—
 Brussels, Rec. VII, 631.
 Paris, Rec. XII, 205.
 Vienna, Rec. I, 246.
 motive powers for, Rec. IV, 695; VI, 848.
 National Society in Egypt, Rec. X, 303.
 necessity of abstract research, Rec. II, 544, notes, Rec. VII, 165.
 of Massachusetts, index, Rec. V, 543.
 practical dictionary, Rec. VII, 341.
 scientific, Rec. V, 569; X, 398.
 subarctic, Rec. XI, 1099.
 suggestions to beginners, Rec. IX, 857.
 text-books, Rec. V, 350, 441; VI, 756; VII, 33, 720; X, 898; XI, 599.
 use of potash salts, Rec. X, 136.
 Ville's, G., views on, Rec. V, 662.
 weather forecast for, Rec. VII, 474.
 without animal husbandry, Rec. V, 656, 823.
Agrius—
 acutipennis, notes, Rec. VI, 443, 652.
 anxius—
 notes, Rec. XI, 871; XII, 161.
 remedies, Rec. X, 1062.
 bilineatus, notes, Rec. IX, 669, 674, 962; X, 168; XI, 764; XII, 161.
 interruptus, notes, Rec. X, 168.
 otiosus, notes, Rec. XII, 161.
 ruficollis, notes, Bul. 2, II, 92; Rec. III, 46, 102, 705; IV, 839; V, 403; VII, 697.
 (See also RASPBERRY GOUTY GALL BEETLE.)
 sinuatus, notes, Rec. VI, 443, 740; VII, 40; VIII, 911; IX, 67, 370; XI, 273.
 spp. notes, Rec. IV, 416; IX, 962.
Agriotes—
 lineatus, notes, Rec. VII, 700; X, 65; XII, 973, 974.
 mancus, notes, Rec. II, 80; III, 450; IV, 254, 839; VIII, 143.
 obscurus, notes, Rec. VII, 700; X, 65; XI, 765; XII, 1060.
 segetum, notes, Rec. XII, 973.
 sputator, notes, Rec. VII, 700; XII, 1060.
Agromyza—
 æneiventris, notes, Rec. XI, 952.
 phaseoli—
 attacking beans, Rec. XI, 561.
 n. sp., notes, Rec. XI, 563.
 Agromyzidæ, habits, Rec. X, 570.
 Agronomic—
 Institute at Glembloux, experiments, Rec. V, 141.
 station of Pas-de-Calais, Rec. VII, 631.
Agropyron— (See also WHEAT GRASS AND BLUE STEM GRASS.)
 brevifolium, notes, Rec. X, 516.
 caninum, notes, Rec. VI, 404; VIII, 780.
 divergens, notes, Rec. II, 321; IV, 951.
 elmeri, notes, Rec. X, 516.
 glaucum—
 notes, Rec. II, 321, 329; III, 28; V, 577; VI, 417.
 occidentale, notes, Rec. VI, 404.
 japonicum, notes, Rec. III, 595; VI, 721; VIII, 687; X, 244, 245.

Agropyron—Continued.

- richardsoni*, notes, Rec. VIII, 780.
 sp. notes, Rec. IV, 925; V, 679.
spicatum, notes, Rec. VIII, 780; X, 147, 343.
strigosum, notes, Rec. II, 321.
tenerum—
 for permanent meadows, Rec. III, 398.
 notes, Rec. II, 321; III, 85; VI, 404; VIII,
 780; XII, 436.
unilaterale notes, Rec. II, 321; VI, 404.
violaceum, notes, Rec. II, 321, 329.

Agropyron, revision of genus, Rec. VIII, 749.

Agrostemma githago. (See CORN COCKLE.)

Agrostis—

- aquivalvis*, notes, Rec. IV, 498.
alba—
 notes, Rec. II, 321, 487; III, 158; X, 244.
 var. *vulgaris*, analyses, Rec. III, 629.
 (See also REDTOP and BENT GRASS.)
canina—
 for lawns, Rec. III, 532.
 notes, Bul. 2, II, 84; Rec. II, 238, 321.
densiflora, notes, Rec. IV, 498.
dispar, analyses, Rec. IX, 268.
exarata—
 form *asperifolia*, notes, Rec. IV, 498.
 notes, Rec. II, 321.
foliosa, notes, Rec. IV, 951.
hallii, notes, Rec. IV, 498.
hiemalis, notes, Rec. VI, 403.
humilis, notes, Rec. IV, 498.
idahoensis, n. sp., notes, Rec. VIII, 567.
microphylla, notes, Rec. IV, 951.
paludosa, notes, Rec. X, 516.
scabra, notes, Rec. II, 321.
stolonifera, notes, Rec. II, 601, 740; III, 29.
tennis, notes, Rec. IV, 498.
vulgaris. (See also REDTOP and BENT GRASS.)
 major, notes, Rec. II, 488.
 minor, notes, Rec. II, 488.

Agrostologist, appointment, Rec. V, 834.

Agrostology—

- progress in, Rec. XII, 421.
 systematic, recent additions, Rec. XI, 709.

Agrotis— (See also CUTWORMS and *Carneades*.)

- annexa*, notes Rec. III, 327.
auxiliaris, notes, Rec. II, 719.
badinodis, notes, Rec. II, 719.
bi-carnea, notes, Rec. II, 719.
biconica affecting indigo, Rec. XI, 1063.
brunneicollis, notes, Rec. II, 719.
clandestina, notes, Rec. II, 719.
c-nigrum, notes, Rec. II, 719; IV, 416.
exclamationis—
 notes, Rec. VIII, 611, 909.
 remedies, Rec. XI, 658.
fennica, discussion of habits, Rec. II, 269.
gladiaria, notes, Rec. II, 719; VIII, 321.
herilis, notes, Rec. II, 80.
infusa, notes, Rec. XI, 766.
introferens, notes, Rec. VI, 651.
mercenaria, notes, Rec. II, 719.
messoria. (See *Carneades messoria*.)
4-dentata, notes, Rec. II, 719.
saucia—
 new form, Rec. XI, 658.
 notes, Rec. II, 719; IV, 354.

Agrotis—Continued.

- segetis* affecting indigo, Rec. XI, 1063.
segetum—
 notes, Rec. VI, 317; VIII, 611, 909; XI, 370,
 765.
 remedies, Rec. XI, 658.
 sp., notes, Rec. II, 734; VIII, 418.
subgothica, notes, Rec. II, 719; III, 792; IV,
 416; VI, 314.
suffusa, notes, Rec. II, 719.
telifera, notes, Rec. III, 175.
tessellata. (See *Carneades tessellata*.)
triosa, notes, Rec. II, 719.
velleripennis, notes, Rec. II, 719.
venerabilis, notes, Rec. II, 719.
ypsilon, notes, Rec. II, 719; IV, 354; VI, 915;
 VIII, 66; IX, 370; X, 369; 1069; XII, 865.

Ahnfeldtia plicata, notes, Rec. IV, 715.

Ai camphor, notes, Rec. VII, 774.

Ailanthus—

- abnormal root swelling, Rec. VI, 437.
 disease in Paris, Rec. VI, 437.

Ailanthus glandulosus notes, Rec. IV, 654; XII, 153.

Air— (See also ATMOSPHERE.)

- analysis by mushrooms, Rec. VIII, 671.
 and methods of hygrometry, Rec. X, 1030.
 plants, carbonic acid and oxygen ex-
 changes, Rec. IV, 517, 870.
 soil of forests, hygienic significance, Rec.
 IV, 876.
 water in the soil, Rec. VII, 290.
 at high altitudes—
 bacteriology, Rec. V, 345.
 chemical composition, Rec. IX, 30.
 studies, Rec. V, 819; VI, 971, 972.
 bacteria in, Rec. IX, 229.
 bacteriological examination, Rec. VII, 658.
 bath, description, Rec. IV, 870, 984.
 carbonic acid content, Rec. VI, 196; VIII, 155.
 carbureted, for heating laboratory apparatus,
 Rec. X, 1005.
 circulation in soils, Rec. VII, 664.
 composition at different altitudes, Rec. XII,
 731.
 compressed, for transferring wash solutions,
 Rec. V, 286.
 confined, cultures in, Rec. V, 845.

currents—

- above Indian monsoon region, Rec. VIII,
 676.
 in thunderstorms, Rec. XI, 620.
 determination—
 in water, Rec. XII, 716.
 of carbon monoxid, Rec. X, 118.
 dynamics, laboratory experiments, Rec. XI,
 621.
 effect on butter, Rec. V, 1023; XI, 584.
 exploration by kites, Rec. X, 125.
 flora of semidesert region of New Mexico,
 Rec. XII, 913.
 flow through rigid porous media, Rec. XI, 518.
 fresh, effect on tubercle bacillus, Rec. VII, 928.
 gaseous nitrogen of, assimilation by microbes,
 Rec. V, 1010.
 heated, treatment of beet chips with, Rec. V,
 735.
 inspired, carbon dioxid content, Rec. X, 1089.

Air—Continued.

iodin content, *Rec. XI*, 133.

liquid—

as a reagent, *Rec. XII*, 309.source of power, *Rec. XI*, 222.effect on ferments, *Rec. XII*, 916.measurement of coefficient of viscosity, *Rec. IX*, 1034.methods of examining, *Rec. XI*, 482.micro-organisms, *Rec. V*, 435; *VI*, 18.moisture content as affected by groves, *Rec. VIII*, 891.movements, *Rec. XI*, 821.nitrates in, *Rec. VIII*, 385.of cattle barn, bacteria in, *Rec. VIII*, 168.Tharand forests, sulphurous acid content, *Rec. X*, 531.Toulouse, absence of iodine, *Rec. X*, 1030.origin of oxygen in, *Rec. V*, 345.

oxygen—

content, physiological effect, *Rec. IX*, 275.
in, *Rec. IX*, 26.

purification—

by sodium dioxid, *Rec. XII*, 731.
soil, *Rec. XII*, 926.

rarefied—

effect on man, *Rec. IX*, 276.
effect on rabbits, *Rec. IX*, 276.

respired—

apparatus for measuring, *Rec. XI*, 971.
poisonous properties, *Rec. XII*, 477.secondary nitrogen products formed during combustion, *Rec. V*, 1026.

temperature—

and moisture in fields and woods, *Rec. X*, 930.as affected by forests, *Rec. XII*, 653.at different heights, *Rec. V*, 819; *VI*, 972; *XI*, 819.in the region of Paris, *Rec. III*, 926.thermometer, new form, *Rec. X*, 125.tight vessels in bacteriological work, *Rec. VII*, 279.treatise, *Rec. XII*, 525, 676.warmed, for ventilation of cow stalls, *Rec. VII*, 797.

Aira—

cæspitosa, notes, *Rec. III*, 61; *VI*, 531.*flexuosa*—analyses, *Rec. IV*, 769, 770.
notes, *Rec. IV*, 771.Airol as an antiseptic, *Rec. XI*, 797.*Akebia quinata*, notes, *Rec. IV*, 656.

Alabama—

commissioner of agriculture report, *Rec. IV*, 697.fungi, new species, *Rec. VIII*, 671; *IX*, 227; *X*, 725.stations, legislation relating to, *Rec. II*, 470.

Alaska—

agricultural—

capabilities, studies, *Rec. XI*, 98.investigations, *Rec. IX*, 1097; *XI*, 42, 98, 497; *XII*, 630.botanical survey, *Rec. XI*, 28.climate, *Rec. IX*, 424; *XI*, 31.commission to visit, *Rec. IX*, 99.

Alaska—Continued.

experiment station in, *Rec. X*, 701.meteorological work, *Rec. X*, 325.notes, *Rec. V*, 737.*Alaus oculatus*, notes, *Bul. 2, II*, 58.*Albizzia moluccana*, wood, anatomy, *Rec. VI*, 279.*Albugo ipomææ-panduranae*, notes, *Rec. VI*, 987.Albumen. (*See* EGG ALBUMEN.)

Albumin—

action of molds on, *Rec. VI*, 279.active, studies, *Rec. X*, 223.as reserve material in plants, *Rec. VI*, 111; *IX*, 622.ash-free, studies, *Rec. VI*, 503.blood, analyses, *Rec. V*, 777.cheese, experiments, *Rec. VIII*, 729.

cleavage—

by hydrochloric acid, *Rec. VIII*, 466.products, *Rec. VIII*, 377; *X*, 116.coagulation, *Rec. V*, 344.coagulation in meat, *Rec. VII*, 523.commercial, analysis, *Rec. VIII*, 701.curd, analyses, *Rec. VI*, 110.determination, *Rec. VI*, 15; *XI*, 510.

determination—

in cow's milk, *Rec. VI*, 185, 372; *VIII*, 561.milk, *Rec. VII*, 161.urine, *Rec. XI*, 23.effect of heating in water under pressure, *Rec. X*, 116.formation in onion bulbs, *Rec. X*, 825.hybrid fecundation, *Rec. XI*, 1016.in urine, recognition, *Rec. III*, 654, 819; *IV*, 314, 782; *VII*, 558.wheat, *Rec. IV*, 934.production, in plants, *Rec. IV*, 613.reagent for, *Rec. III*, 419.

Albuminoid—

nitrogen—

determination, *Rec. III*, 615, 633; *VIII*, 858, 861.in corn, *Rec. II*, 399; *V*, 488.feeding stuffs, *Rec. III*, 615, 633; *V*, 465.foods, *Rec. II*, 589.of wheat gluten, *Rec. X*, 917.requirements of man, *Rec. V*, 1031.substances from blood of animals, *Rec. V*, 438.

Albuminoids—

artificial digestion, *Rec. II*, 525; *III*, 256, 259.as affected by halogens, *Rec. IX*, 520.assimilation by leaves, *Rec. VII*, 277.chemical character, *Rec. III*, 488.chemistry of, *Rec. VI*, 966.cleavage by pepsin digestion, *Rec. X*, 313.coagulation, *Rec. VI*, 966.color reaction with potassium ferrocyanid, *Rec. III*, 748.composition, *Rec. III*, 748.conservation by fat, *Rec. V*, 130.constitution, *Rec. V*, 727; *X*, 313.consumption as affected by acids of silage, *Rec. IV*, 69.decomposition during germination, *Rec. VII*, 839; *VIII*, 290.determination, *Rec. V*, 817; *XI*, 418, 971.determination in milk and its products, *Rec. III*, 928.

Albuminoïds—Continued.

digestibility—

- and metabolism as affected by salt, *Rec.* V, 259, 531,
- as affected by fats and oils, *Rec.* II, 529.
- affected by heating, *Rec.* II, 527.

digestion, *Rec.* V, 654; VI, 77.

dissociation and formation of urea in the body, *Rec.* V, 1100.

energy produced by combustion, *Rec.* VI, 163.

feeding rations deficient in, *Rec.* IV, 986.

formation—

- by reduction of nitrates, *Rec.* X, 925.
- in plants, *Rec.* VIII, 668; IX, 227, 526, 625.
- of fat from, *Rec.* III, 579.
- glucose from, *Rec.* V, 259.

importance in human nutrition, *Rec.* IV, 986.

in blood serum precipitation, *Rec.* VI, 111.

cowpea, *Rec.* V, 489.

different parts of the potato, *Rec.* II, 718.

dried brewers' grains, artificial digestion, *Rec.* IV, 90.

in feeding stuffs—

- artificial digestion, *Rec.* III, 831.
- assimilation, *Rec.* V, 258.

in flaxseed, *Rec.* IV, 933.

flour of legumes and cereals, *Rec.* X, 116.

in food—

- as affected by fat, *Rec.* VI, 1012.
- digestion in different rations, *Rec.* V, 534.

in meat, raw and cooked, digestibility, *Rec.* IV, 519.

milk, *Rec.* XI, 904.

in milk—

- as affected by boiling, *Rec.* VII, 895; VIII, 929.
- nomenclature, *Rec.* IV, 781; V, 950.
- precipitation by metaphosphoric acid, *Rec.* IV, 314.
- studies, *Rec.* VI, 111.

in oat kernels, investigation, *Rec.* II, 490; III, 11.

in plants—

- as affected by climate, *Rec.* IV, 108.
- decomposition in absence of oxygen, *Rec.* IV, 517.

formation, *Rec.* V, 648.

in the body—

- combustion, *Rec.* VI, 242.
- decomposition during hunger, *Rec.* V, 259.

formation of fat from, *Rec.* VI, 1013.

in urine, determination, *Rec.* XI, 23.

metabolism in animals, *Rec.* IV, 986, 987.

new class, *Rec.* VIII, 466.

new general reaction, *Rec.* XII, 419.

nomenclature, *Rec.* IV, 781; V, 950.

nutritive value, *Rec.* II, 678.

organic acids in digestion of, *Rec.* II, 526.

oxidation with potassium permanganate, *Rec.* VI, 189.

salt in, *Rec.* II, 527.

stored by animals, *Rec.* III, 499; IV, 70.

studies, *Rec.* X, 313; XI, 618.

synthesis, *Rec.* XII, 310.

transformation, *Rec.* III, 499.

vegetable, notes, *Rec.* VI, 272; VII, 271.

"Albumose" milk, *Rec.* V, 734.

Albumoses—

chemistry, *Rec.* III, 488; VII, 737.

conversion into primary proteids, *Rec.* XII, 108.

determination, *Rec.* XI, 311, 813.

nutritive value, *Rec.* V, 257; XII, 478, 676.

study, *Rec.* VI, 110.

Aleis—

lallata, notes, *Rec.* X, 372.

maestosa, notes, *Rec.* X, 372.

Alcohol—

analysis, manual, *Rec.* XI, 618.

and glycerin in natural wines, *Rec.* V, 824.

water, solubility of sugar in mixtures, *Rec.* VI, 966.

artificial production, *Rec.* VII, 257.

as a protector of protein, *Rec.* XI, 576, 672.

content of Victoria wines, *Rec.* VI, 375.

determination, *Rec.* VII, 17, 186, 272.

determination in beer, *Rec.* VII, 463.

effect on—

artificial digestion, *Rec.* XII, 477.

carbon dioxid and water excretion, *Rec.* XII, 981.

digestion, *Rec.* VII, 971; X, 183, 664.

germination of fungus spores, *Rec.* IX, 1026.

metabolism, *Rec.* XI, 184.

muscular work, *Rec.* X, 81; XI, 79.

nutrition, *Rec.* XII, 980.

proteid metabolism, *Rec.* VII, 708.

secretion of milk, *Rec.* XI, 973; XII, 980.

food value, *Rec.* XI, 380, 770, 971; XII, 780.

for determination of butter and margarin, *Rec.* IX, 322.

determining acidity of milk, *Rec.* XI, 1007.

determining lactic acid, *Rec.* XI, 1006.

drying feces for analysis, *Rec.* X, 313.

extraction of hops, *Rec.* IV, 221.

preservation of fruit, *Rec.* VIII, 700; IX, 447.

formation, *Rec.* III, 924.

formation in plants, *Rec.* IX, 329.

from by-products of sugar manufacture, *Rec.* VI, 280.

fumes as a disinfectant, *Rec.* XII, 991.

hydrofluoric acid in manufacture, *Rec.* III, 211.

in milk, *Rec.* IV, 311; IX, 487; XI, 284.

milk as affected by distillery malt, *Rec.* XI, 284.

silage, *Rec.* II, 374.

sorghum sugar making, *Rec.* II, 469, 747; III, 366; IV, 81.

the vegetable kingdom, *Rec.* XI, 1015.

indirect method of determination, *Rec.* IX, 521.

industry in Germany, *Rec.* IX, 196.

manufacture from sugar beets, *Rec.* XI, 535.

oxidation by Fehling's solution, *Rec.* VI, 503.

production and yeast growth during fermentation, *Rec.* IV, 517.

yeasts, genetic relation to molds, *Rec.* XI, 125.

Alcoholic—

liquids, determination of fusel oil, *Rec.* XI, 313.

liquors, analyses, *Rec.* VIII, 286.

Aldehyde—

content of leaves as affected by light, Rec. X, 929.

formic. (See FORMIC ALDEHYDE.)

influence on activity of plants, Rec. V, 649.

in leaves, Rec. XI, 710.

Aldehydes as affected by "Sorbose bacteria," Rec. XI, 125.

Alder—

American, notes, Rec. XI, 855.

aphis, woolly, notes, Rec. V, 64.

composition of root nodules, Rec. VII, 468.

epidemic disease, Rec. XII, 360.

European, notes, Rec. IV, 654.

foliage, injuries by arsenites, Rec. II, 215, 216.

grafting in open air, Rec. V, 1018.

green, notes, Rec. XII, 958.

insects affecting, Rec. V, 438.

parasite, notes, Rec. XI, 467.

root tubercles, Rec. VI, 279; VII, 561; X, 825.

speckled, notes, Rec. III, 521.

twigs, analyses, Rec. III, 493.

white, notes, Rec. XII, 562.

Alderney, Jersey, and Guernsey cows in Germany, Rec. IV, 223.

Alebra—

bifasciata, notes, Rec. X, 770.

curvilinea, notes, Rec. X, 770.

dorsalis, notes, Rec. X, 770.

fumida, notes, Rec. X, 770.

robusta, notes, Rec. X, 770.

trimaculata, notes, Rec. X, 770.

Alectra brasiliensis, notes, Rec. X, 971.

Aleiodes rileyi, notes, Rec. II, 116.

Aletia—

argillacea. (See COTTON WORM.)

xylina. (See COTTON WORM.)

Aleurodes—

bergi, notes, Rec. VIII, 320.

chelidoni, notes, Rec. VIII, 809.

citri—

fungus parasite, Rec. VI, 556.

notes, Rec. VI, 235; XII, 1058.

n. sp., notes, Rec. IV, 851.

citrifolii, notes, Rec. V, 409.

lactea, notes, Rec. XI, 66.

lonicera, notes, Rec. VII, 698.

longicornis, notes, Rec. XI, 66.

mori, notes, Rec. X, 769.

nubilans, n. sp., description, Rec. XII, 1068.

ruborum—

notes, Rec. VIII, 1002; X, 973.

n. sp., notes, Rec. IX, 574.

sp., notes, Rec. IX, 575.

tabaci, notes, Rec. XI, 472.

vaporariorum—

notes, Rec. III, 91; VI, 235, 652; VIII, 418; IX, 74.

tobacco smoke, Rec. XII, 146.

Aleurodes, notes, Rec. X, 574.

Aleurodicus cocois, notes, Rec. V, 327.

Aleurodidae—

monograph of American species, Rec. XII, 469.

notes, Rec. XI, 476.

studies, Rec. VIII, 416.

Aleuronat, for making bread rich in albuminoids, Rec. V, 733.

Alfalfa—

analyses, Bul. 2, I, 33, 128; Bul. 2, II, 38; Rec. I, 190; II, 50, 243, 580, 589; III, 295, 296, 401, 890; IV, 475, 646, 732, 733; V, 64; VI, 404, 569, 752; VII, 891; VIII, 331, 714, 768; IX, 164, 873; X, 983; XI, 231, 277, 617, 662, 663, 842; XII, 378, 442.

and Hungarian grass silage, preparation, Rec. V, 52.

as a collector of plant food, Bul. 2, I, 130.

feeding stuff, Bul. 2, I, 129; Rec. VIII, 813; X, 146.

forage crop, Rec. X, 147.

forage plant, Rec. III, 28, 30, 51.

affected by alkali, Rec. XII, 431, 1008.

related to bees, Rec. XI, 266.

ash constituents, Rec. III, 295, 890.

botanical study, Rec. VII, 497.

chemical study, Rec. X, 977.

cost of growing, Rec. VI, 296.

culture, Rec. VI, 418; X, 542; XI, 333, 643, 927; XII, 430.

culture—

experiments, Bul. 2, I, 30, 70, 126, 164, 190; Rec. I, 122; II, 395, 396, 633; III, 85, 295, 300, 860; IV, 38, 222, 248, 646; V, 38; VI, 34, 296, 531; VII, 31, 115, 120, 122, 209, 295, 296, 396, 862; VIII, 124, 306, 308, 401, 768; IX, 133, 243, 1048; X, 96, 146, 340; XI, 43, 339; XII, 229, 745.

in Argentina, Rec. VII, 945.

England, Rec. VII, 945.

France, Rec. X, 146.

curing, Rec. X, 539.

damage by red weevil, Rec. VIII, 69.

digestibility, Bul. 2, I, 132; Rec. I, 190; X, 379, 982; XI, 662, 663.

disease, Rec. II, 322; VII, 39.

dodder—

eradication, Rec. IX, 143.

infesting, Rec. X, 54.

dry and digestible matter in, Rec. V, 1071.

effect on young orchard trees, Rec. XI, 1048.

experiments—

in seeding, Rec. XI, 441; XII, 457.

with Nitragin, Rec. XI, 516.

fall preparation for seeding, Rec. X, 498.

feeding value, Rec. II, 271; VIII, 813; XI, 576.

fertilizer experiments, Rec. III, 295, 299, 300; X, 539; XI, 643; XII, 133, 531, 641.

fertilizing—

constituents, Bul. 2, I, 133.

value, Rec. VIII, 771; XII, 427.

field curing v. drying on racks, Rec. IX, 439.

for cows, Rec. III, 131; VII, 57; VIII, 627, 634; X, 295; XII, 783.

green manuring, Rec. XI, 254, 833; XII, 1031.

lambs, Rec. VIII, 1008; XI, 666.

meadows and pastures, Rec. II, 238.

orchards, Rec. VII, 585.

pigs, Rec. III, 624; VIII, 157; X, 177; XI, 375, 377, 1070.

sheep, Rec. III, 624; XI, 378, 662.

steers, Rec. IV, 936; XI, 663; XII, 670.

Alfalfa—Continued.

growth, Rec. I, 190.

gypsum for, Rec. VI, 293.

hay—

analyses, Rec. V, 1074; IX, 968.

digestibility, Bul. 2, I, 132; Rec. IX, 968; X, 180; XI, 381; XII, 989.

fertilizing constituents, Bul. 2, I, 133.

for pigs, Rec. XI, 182, 397, 498; XII, 174, 898.

nutritive value, Rec. XI, 73.

prevention of mold, Rec. XI, 333.

storing, Rec. IX, 968.

in eastern Kansas, Rec. XII, 898.

Kansas, Rec. VI, 984; XI, 926, 1037.

injury by *Hypera muriana*, Rec. VIII, 148.

insects affecting, Rec. XI, 563.

irrigation, Rec. XI, 240; XII, 431, 539.

irrigation experiments, Rec. XII, 641.

land plaster for, Rec. VIII, 689.

leaf spot—

cause, Rec. X, 58.

notes, Rec. XII, 566.

treatment, Rec. III, 689; X, 263.

length of roots at different ages, Bul. 2, II, 86.

new species of cuscute attacking, Rec. XI, 1057.

notes, Bul. 2, I, 189; Bul. 2, II, 85; Rec. II, 50, 238, 271, 330, 594, 601, 633, 642, 650, 658; III, 28, 30, 51, 890; V, 161, 577, 625, 679, 808, 871, 881, 910; VI, 203, 215, 294, 542, 631, 883; VII, 380; VIII, 306; X, 42; XI, 339; XII, 143, 329, 539.

pest, Rec. VIII, 911.

root disease—

notes, Rec. V, 348; VI, 647.

treatment, Rec. VI, 560.

root rot—

notes, Rec. IV, 470; X, 865.

treatment, Rec. XI, 253; XII, 1055.

root system, VIII, 770.

seed—

American v. European, Rec. III, 266.

dodder in, Rec. XI, 750.

germination, Rec. VI, 429; VII, 406; VIII, 770.

of different regions, comparison, Rec. XI, 156; XII, 457.

viability, Rec. XI, 157.

weed seeds in, Rec. XII, 457.

springtail, remedies, Rec. XII, 468.

studies, Rec. IX, 799.

time of harvesting, Rec. VI, 203; XI, 599.

Turkestan—

culture, Rec. XII, 430.

notes, Rec. XI, 1037; XII, 329, 332.

varieties, Rec. II, 395, 396; IV, 411; XI, 43, 1036.

v. barnyard manure as a fertilizer, Rec. VI, 628.

v. corn, Rec. V, 1071.

v. red clover as a feeding stuff, Rec. VIII, 813.

web moth, notes, Rec. XI, 173.

worm—

in Wyoming, notes, Rec. V, 514.

remedies, Rec. XI, 1064.

yield—

and feeding value, Rec. II, 271; VIII, 813.

as affected by time of cutting, Rec. IX, 164; X, 983.

Alfileria—

analyses, Rec. VIII, 714.

notes, Rec. IV, 47; X, 343.

Algæ—

agar cultures, Rec. IX, 29.

and infusoria as affected by chemicals, Rec. VIII, 670.

as affected by certain chemicals, Rec. XI, 910, 1016; XII, 1014.

assimilation of free nitrogen by, Rec. V, 649; VI, 278; X, 320; XI, 516.

composition, Rec. V, 923.

effect on greenhouse plants, Rec. XI, 906.

fresh-water, Rec. V, 659.

growth as affected by different substances, Rec. XII, 314, 1014.

marine, absorption of light, Rec. VII, 657.

parasitic, of Java, Rec. XII, 461, 1057.

preservation, Rec. VIII, 381.

salt-water, fixing and preparation, Rec. IX, 1027.

thread-like, anatomy of cells, Rec. V, 345.

unicellular, studies, Rec. X, 121.

Algerian sheep, Rec. V, 439.

Algiers, agricultural relations, Rec. IV, 317.

Alimentary tract, chemistry of contents, Rec. IX, 481.

Alinit—

a new bacterial preparation, Rec. IX, 227.

as a germ fertilizer, Rec. IX, 526, 624; XI, 121.

bacteria, nitrogen assimilation, Rec. XI, 1016; XII, 37.

biological studies, Rec. X, 120, 121, 223, 636, 929; XI, 917, 1016; XII, 614.

experiments, Rec. X, 23, 135, 722, 825, 927, 1012, 1013, 1037; XI, 23, 711, 1016; XII, 336, 338, 352, 532, 739.

in floriculture, Rec. XI, 424.

method of application, Rec. XII, 614.

résumé, Rec. XI, 29, 1016.

Alizarin green B as an indicator, Rec. XII, 213.

Alkali—

accumulation—

due to defective drainage, Rec. XII, 523.

in irrigated soils, Rec. XII, 923.

analyses, Rec. I, 191; III, 590; VIII, 679; IX, 428; X, 229.

black, formation by saltbushes, Rec. XI, 1099.

carbonates—

determination in presence of bicarbonates, Rec. XII, 819.

formation in nature, Rec. IV, 782.

caustic, action on pepsin ferment, Rec. V, 729.

character and occurrence, Rec. VIII, 175, 568.

chemical reactions, Rec. III, 590.

corrective, Rec. IX, 429; X, 235.

crucible for determination, Rec. XII, 419.

determination in soils, Rec. XII, 1022.

effect on—

forest vegetation, Rec. XI, 434.

germination and growth of plants, Rec. XI, 459, 1052; XII, 1008.

growth of citrus fruits, Rec. XII, 923.

orchard trees, Rec. VIII, 706.

plants, Rec. XI, 397.

soils and plants, Rec. IV, 120; VIII, 568.

sugar beets, Rec. X, 743.

explanation of terms relating to, Rec. V, 1002.

Alkali—Continued.

- glycerol as a saponifying agent, *Rec. III*, 749.
- grass, notes, *Rec. III*, 598.
- injuries to plants, *Rec. XII*, 621.
- investigations, *Rec. X*, 1025.
- land, reclaiming, *Rec. II*, 694.
- notes, *Rec. XII*, 798.
- of Yellowstone Valley, *Rec. X*, 1026.
- origin and composition, *Rec. XII*, 621.
- phosphates, manufacture, *Rec. V*, 255, 436; *VI*, 795.
- resistant plants, *Rec. XII*, 621.
- sacaton, notes, *Rec. X*, 343.
- salt solution, evaporation of water from, *Rec. XII*, 1009.
- salts—
 - absorption by plants, *Rec. XII*, 1009.
 - analyses, *Rec. X*, 1028.
 - physiological rôle in plants, *Rec. XI*, 1008.
 - tolerance of plants, *Rec. X*, 226.
- soils. (*See* SOILS, ALKALI.)
- solution, effect on phenylosazones of di and polysaccharids, *Rec. VIII*, 285; *IX*, 24.
- solutions, standardizing, *Rec. V*, 511; *VI*, 182.
- spots, drainage, *Rec. XII*, 526.
- waters, *Rec. XI*, 813; *XII*, 320.

Alkalimetry—

- and acidimetry, methods, *Rec. V*, 253; *VII*, 17.
- indicators, *Rec. XI*, 310.
- sources of error in, *Rec. VII*, 18.
- use of succinic acid, *Rec. XII*, 308.

Alkaline—

- chlorids, surface tensions of solutions, *Rec. XI*, 112.
- copper solution for determination of glucose, *Rec. VI*, 504, 868.
- nitrate, analysis, *Rec. VI*, 269.
- tablets for testing acidity of cream, *Rec. VI*, 248.

Alkalis—

- action on glucose, *Rec. VI*, 376.
- and lime, effect on invert sugar, *Rec. IV*, 988; *V*, 251.

decomposition—

- of carbohydrates by, *Rec. IX*, 115.
- monosaccharids by, *Rec. VIII*, 285.

- determination in water, *Rec. XI*, 813.
- effect on carbohydrates, *Rec. VII*, 645, 740.

Alkaloid—

- deliquescent, in white lupine, *Rec. V*, 252.
- new, in coffee, *Rec. VI*, 190.

Alkaloids—

- action on plants, *Rec. VII*, 838.
- determination, *Rec. IV*, 448; *V*, 252.
- effect on—
 - germination and development of seeds, *Rec. VI*, 903.
 - plants, *Rec. IX*, 625.
- furfural reaction, *Rec. V*, 126.
- in barberries, *Rec. III*, 654.
- betel nuts, *Rec. III*, 654.
- black Siberian lupines, *Rec. VI*, 808.
- blue lupine, *Rec. III*, 578.
- cacao, determination, *Rec. V*, 817.
- Corydalis cava*, *Rec. VI*, 869.

Alkaloids—Continued.

- in *Gelsemium sempervirens*, *Rec. V*, 252.
- lupine seeds, *Rec. IV*, 983.
- lupines, *Rec. IX*, 25, 520, 625.
- plants, *Rec. V*, 433.
- seeds, *Rec. VI*, 195.
- Solanaceæ, *Rec. III*, 925; *VIII*, 290.
- urine, determination, *Rec. XI*, 23.
- white lupines, *Rec. III*, 749; *V*, 252.
- localization in *cinchona*, *Rec. IX*, 329.
- rôle in plants, *Rec. XI*, 317.
- separation, *Rec. VIII*, 667; *IX*, 805.
- transformation during germination, *Rec. II*, 456.
- vegetable—
 - chemistry, *Rec. IX*, 323.
 - constitution, *Rec. XI*, 619.
 - determination, *Rec. VII*, 272, 921.
 - studies, *Rec. VI*, 691; *VII*, 651; *X*, 116; *XII*, 1008.
- volumetric determination, *Rec. IV*, 387.

Alkekengi, herbaceous grafting, *Rec. II*, 508.*Allantospora radicola*—

- as a cause of root rot of sugar cane, *Rec. X*, 57.
- notes, *Rec. VIII*, 317.

Allescheria laticis—

- notes, *Rec. XII*, 958.
- n. sp., *Rec. XI*, 556, 1061.

Alligator pear—

- etymology, *Rec. XI*, 250.
- notes, *Rec. VI*, 636; *XII*, 451.

Allionia—

- incarnata*, notes, *Rec. X*, 343.
- nyctaginea*, notes, *Rec. XI*, 315.

Allium—*fistulosum*—

- development of pollen grains, *Rec. IX*, 328.
- germination as affected by light, *Rec. XII*, 1049.

fragans, notes, *Rec. VIII*, 892.*vineale*—

- notes, *Rec. III*, 308, 893; *VII*, 872; *VIII*, 988.
- root system, *Rec. IV*, 46.

Allium, genus, parasitic fungi, *Rec. II*, 481.*Allorhina*—*mutabilis*—

- as affected by irrigation, *Rec. IV*, 666.
- notes, *Rec. IV*, 373; *X*, 61.

- nitida*, notes, *Rec. II*, 405; *III*, 230, 318, 327; *V*, 685; *VIII*, 418, 904; *X*, 62, 458, 569, 571; *XI*, 952.

sobrîna, notes, *Rec. III*, 886; *V*, 992.Allotrophy of cane sugar, *Rec. IX*, 25.Allspice, analyses, *Rec. X*, 281.*Allygus*—

- costomaculatus*, n. sp., notes, *Rec. VI*, 564.
- irroratus*, notes, *Rec. II*, 80.

Almond—

- anthracnose, notes, *Rec. VII*, 964; *VIII*, 139.
- diseases, treatment, *Rec. IV*, 955.
- double flowering, affected by *Monilia fructigena*, *Rec. XI*, 757.
- flowering, notes, *Rec. IV*, 656.

Almond—Continued.

- grafted on cherry, Rec. V, 1089.
- oil, effect on butter, Rec. X, 686.
- trees, diseases, Rec. III, 810.
- white Siberian, notes, Rec. III, 788.
- willow, notes, Rec. III, 521.

Almonds—

- California, analyses, Rec. VIII, 787; X, 255.
- culture, Rec. VIII, 230.
- culture in—
 - California, Rec. VI, 729.
 - Tunis, Rec. VIII, 701.
 - Utah and Nevada, Rec. IX, 52.
- germination, Rec. IX, 55.
- notes, Rec. V, 584, 586, 587; VI, 636; IX, 353; X, 49, 254, 547, XII, 237, 945.
- varieties, Bul. 2, I, 183; Rec. II, 295, 642; IV, 556; V, 190; VI, 729, 820; VII, 215; VIII, 230, 702; X, 254, 355.

Alnarp, Sweden—

- Agricultural and Dairy Institute, Rec. IX, 707.
- Agricultural Chemical Station, Rec. VI, 109; VIII, 1034.
- chemical laboratory of Agricultural Institute, Rec. VIII, 484.

Alnus fruits, sclerotium disease, Rec. IX, 852.

Alnus— (See also ALDER.)

- glutinosa*, notes, Rec. XII, 153.
- incana*, notes, Rec. III, 521; IV, 654.
- viridis*, notes, Rec. XI, 855.

Aloe stalks, analyses, Rec. X, 678.

Aloes—

- for scale insects, Rec. III, 54.
- fungus disease, Rec. XI, 469.

Alopecurus—

- alpinus*, notes, Rec. II, 321; IV, 498.
- aristulatus*, notes, Rec. II, 321.
- californicus*, notes, Rec. IV, 498.
- geniculatus aristulatus*, notes, Rec. VI, 403.
- geniculatus* var. *robustus*, notes, Rec. IV, 498.
- howellii*, notes, Rec. IV, 498.
- macounii*, notes, Rec. IV, 498.
- pratensis*. (See MEADOW FOXTAIL.)
- saccatus*, notes, Rec. IV, 498.
- steinegeri*, notes, Rec. IV, 498.

Alpha churn, description, Rec. VIII, 1032.

Alpine—

- gardens, plants for, Rec. XI, 52.
- meadows and fields, Rec. V, 821.
- plants—
 - leaf structure, Rec. V, 424, 923.
 - production by alternation of temperatures, Rec. XI, 421.

Alsike clover. (See CLOVER, ALSIKE.)

Alteranthera—

- revision of genus, Rec. VII, 370.
- sp., notes, Rec. V, 401.

Alternaria—

- brassicae*—
 - affecting turnips, Rec. XI, 58.
 - nigrescens*, affecting muskmelons, Rec. XI, 755.
 - nigrescens*, on melons, Rec. V, 731; VI, 147.
- polymorpha*, n. sp., description, Rec. XII, 718.
- solani*, bibliography, Rec. IX, 846.
- sp., notes, Rec. III, 7; X, 362; XII, 253, 359.
- on nasturtiums, Rec. IV, 54.

Alternaria—Continued.

- varians*, n. sp., description, Rec. XII, 718.
- viola*, notes, Rec. XII, 963.

Alternaria—

- causing a muskmelon disease, Rec. XI, 552.
- leaf blight, treatment, Rec. XII, 552.

Alternation of generations, Rec. VIII, 957.

Althea, notes, Rec. IV, 655.

Althea rosea, notes, Rec. IV, 653.

Altitude, effect on—

- rainfall, Rec. XII, 1017.
- yield of potatoes, Rec. XII, 636.

Altona, Prussia, chemical laboratory, extracts from report, Rec. X, 492.

Alucite on cereals in France, Rec. V, 1030.

Alum—

- analyses, Rec. X, 716.
- as an insecticide, Bul. 2, I, 93.
- determination in wines, Rec. VII, 362; XII, 823.
- effect on—
 - digestibility of bread, Rec. VI, 238.
 - wine, Rec. VII, 271.
- for purification of water, Rec. XI, 526.
- rose chafers, Rec. III, 171; V, 328.
- in palm-nut cake, Rec. III, 503.
- rape cake, Rec. III, 503.
- logwood test, Rec. XII, 1007.

Alumina—

- and iron oxid. separation, Rec. IV, 782.
- determination, Rec. VII, 457; VIII, 286, 559, 663; IX, 26, 224, 321, 417, 620; XI, 106, 613; XII, 416, 418, 611.
- determination in phosphates, Rec. II, 522; IV, 313; V, 126; VI, 368, 691, 867; VII, 272, 915; XII, 107, 416.
- distribution, in plants, Rec. VI, 784.
- hydrated phosphate for fertilizer manufacture, Rec. V, 436.
- in impure tartrate solutions, Rec. V, 433.
- separation, in plants, Rec. VII, 271.

Aluminum—

- action on chlorids and sulphates, Rec. V, 817.
- apparatus for laboratory use, Rec. IV, 613.
- chips for clarification of beer, Rec. VI, 377.
- for condensers, Rec. VIII, 862.
- from aqueous solutions, Rec. VIII, 105.
- hydroxid, effect on digestibility of bread, Rec. VI, 238.
- phosphate—
 - analyses, Rec. VII, 854; IX, 919; XII, 717.
 - effect on digestibility of bread, Rec. VI, 238.
 - precipitation with ammonia, Rec. IV, 313.

- phosphates of Grand Connétable, Rec. VII, 25, 190.
- ware for domestic purposes, Rec. IX, 621.

Alypia octo-maculata. (See EIGHT-SPOTTED FORESTER.)*Amanita*, composition of red pigments, Rec. VIII, 26.*Amanita*—

- muscaria*, notes, Rec. IX, 527, 649; X, 516; XI, 121.
- pantherina*—
 - notes, Rec. XI, 121.
 - poisoning by, Rec. III, 820; VII, 504.

Amanita—Continued.*phalloides*—

- notes, Rec. IX, 527, 649; X, 516, 551; XI, 121.
poisonous effect, Rec. X, 1050.

verna, notes, Rec. XI, 121.*Amara*, sp., notes, Bul. 2, II, 93.*Amarantaceae*, North American, revision, Rec. VI, 872; VII, 276, 370, 925.*Amaranth*—

- low, notes, Rec. V, 497; VI, 732; VIII, 795.
rough, notes, Rec. V, 497; VI, 732; VIII, 795.
spiny, notes, Rec. VII, 135.
thorny, notes, Rec. VIII, 794.

Amarantus—*albus*—

- notes, Rec. III, 598; IV, 699; V, 497; VI, 552; VIII, 795.
root system, Rec. IV, 46.

blitoides—

- notes, Rec. V, 497; VI, 732; VIII, 795; X, 343.
root system, Rec. IV, 47.

chlorostachys—

- notes, Rec. III, 308; V, 497; VI, 732; VIII, 795.
root system, Rec. IV, 46.

frumentaceus, notes, Rec. VIII, 234.*gangticus*, notes, Rec. VI, 218.*paniculatus*, notes, Rec. VIII, 234.*retroflexus*—

- notes, Rec. III, 598; IV, 47; V, 497, 911; VI, 732; VIII, 234; IX, 142.
root system, Rec. IV, 46.

spinosus, notes, Rec. VII, 135, 689; VIII, 794.*Amaryllis*, culture, Rec. VII, 586.

Amber cane. (See SORGHUM.)

Amblyomma—*americanum*, notes, Rec. XII, 973.*hebraeum*—

- notes, Rec. XI, 763; XII, 861.
transmission of heart water, Rec. XII, 491.
quantini, notes, Rec. VI, 742.
tuberculatum, n. sp., Rec. VI, 440.
unipunctata, notes, Rec. VI, 472; XI, 173, 588.

Ambrosia—*artemisiæfolia*—

- analyses, Rec. III, 629.
notes, Rec. III, 308, 893; IV, 699; V, 911.
root system, Rec. IV, 47.

psilostachya, notes, Rec. IV, 699.*trifida*—

- analyses, Rec. VIII, 520, IX, 1024.
notes, Rec. IV, 699.
root system, Rec. IV, 47.

Ambrosia beetles, notes, Rec. IX, 575, 666; XII, 367, 975.*Amelanchier*—*alnifolia*, notes, Rec. III, 522.*canadensis*—

- as host of *Gymnosporangium*, Rec. II, 712.
notes, Rec. III, 522; V, 586.
var. *oblongifolia*, notes, Rec. IV, 917.

Amelanchiers, notes, Rec. IX, 141.*Amentiferae*, seeds and seedlings, Rec. X, 921.*American*—

agricultural institutions, Rec. VII, 720.

products—

- Hamburg market, Rec. IX, 199.
world's markets, Rec. X, 397.

Amid—

- nitrogen in corn plant, Rec. V, 488.
of sugar cane, Rec. X, 117.

Amido-sulphonic acid, physiological action, Rec. IX, 524, 624.*Amids*—

- action in the animal economy, Rec. II, 530.
in cowpea, Rec. V, 489.

Amins in sugar-cane juice, Rec. VIII, 286.*Ammannia coccinea*, notes, Rec. X, 343.*Ammonia*—

- absorption by different kinds of litter, Rec. V, 141.

and ammonium salts, excretion, Rec. IX, 982.

- copper carbonate for potato rot, Rec. V, 317.

- nitric nitrogen in sugar beets, Rec. VII, 862.

assimilation by beans, Rec. V, 225.

atmospheric, in the nutrition of plants, Rec. VIII, 29.

compounds, nitrogen in, Rec. V, 464.

copper—

- for apple scab, Rec. III, 620.

- preparation, Rec. III, 847.

crude, for combating dodder, Rec. VIII, 234.

derivatives of carbohydrates, Rec. VII, 645, 832.

determination—

- apparatus for, Rec. III, 654; XII, 418.

- by the calorimeter, Rec. V, 1026.

- in fertilizers, Rec. XI, 560.

- gas liquor, Rec. V, 647; XII, 1006.

- water, Rec. III, 748; IV, 782; XI, 112, 312.

distillation in nitrogen determination, Rec. XII, 307.

effect on—

- dextrose, Rec. VI, 775.

- incubation of eggs, Rec. XI, 1093.

- metabolism in sheep, Rec. XII, 874.

for destroying nematodes, Rec. XII, 370.

- preserving milk samples, Rec. V, 124.

formation—

- from nicotin, determination, Rec. VII, 364.

- from nitric acid, Rec. VII, 834.

- in wine, Rec. IX, 419, 696.

free water, preparation, Rec. VIII, 99.

from animal refuse, peat, etc., preparation, Rec. V, 436.

- excreta of animals, effect of urine on formation and dispersion, Rec. IV, 388.

gas, effect on vegetation, Rec. III, 926.

in arable soils, Rec. III, 110.

- atmospheric water, Rec. II, 341.

- dry land and paddy soils, Rec. II, 764.

- liquids containing sulphids and cyanids, Rec. V, 647.

- manure leachings, Rec. V, 153.

- rain water, Rec. III, 82.

Ammonia—Continued.

- in rain water and atmosphere of the Tropics, Rec. III, 578.
- snow, Rec. III, 82.
- the stomach, effect on hydrochloric acid content, Rec. V, 259.
- loss from animal excreta, Rec. IV, 518.
- Nessler's test, Rec. IV, 781, 983.
- oxidation by soil ferments, Rec. XI, 212.
- production—
 - by soil bacteria, Rec. XII, 729.
 - in soils and plants, Rec. IX, 633.
 - in the soil by microbes, Rec. V, 614.
- transformation into nitric acid on liquid media, Rec. X, 1024.
- v. nitrate of soda, fertilizing value, Rec. XII, 429.
- water, variation, Rec. VII, 290.

Ammoniacal—

- cyanid of mercury in quantitative analyses, Rec. V, 817.

fermentation—

- due to molds, Rec. X, 322.
- of the soil, Rec. IV, 860.
- studies, Rec. IX, 1028.

gas liquor—

- ammonia in, Rec. V, 647; XII, 1006.
- analyses, Rec. IV, 436.

nitrogen—

- assimilation by plants, Rec. IX, 724; X, 1011.
- of gas liquor, fixation by straw, Rec. IV, 293.
- v. nitric nitrogen, Rec. XI, 831.

Ammonium—

- carbonate for preserving milk samples, Rec. V, 124.

chlorid—

- behavior at temperature of water bath, Rec. V, 647.
- for determination of uric acid, Rec. IV, 221.
- for rose chafers, Rec. III, 171.
- in carnallite, Rec. III, 581.
- solutions, solvent effect on ammonium phosphate precipitate, Rec. XI, 107.

citrate—

- bath for digestion of phosphates, Rec. V, 386.
- for estimating albumin, Rec. XI, 510.
- neutral, preparation, Rec. IV, 461; X, 410.
- neutral, v. triammonium citrate for fertilizer analysis, Rec. IV, 461.
- solubility of insoluble phosphates, Rec. V, 355.
- solution, determination of neutrality, Rec. VIII, 286.
- solution, preparation, Rec. VI, 864.

compounds—

- absorptive power of soils for, Rec. VI, 122.
- poisonous effect on wheat, Rec. XII, 717.
- copper carbonate, preparation, Rec. XII, 975.
- hydrate for—
 - oat smut, Rec. II, 639.
 - wheat smut, Rec. II, 221.

Ammonium—Continued.

magnesium phosphate—

- constitution, Rec. XI, 107.
- ignition with filter paper, Rec. X, 716.
- nitrate for preserving milk samples, Rec. V, 124.

phosphate—

- analyses, Rec. IV, 903; VI, 287.
- as a fertilizer, Rec. III, 579.
- phospho-molybdate, Rec. VII, 271.
- phospho-molybdate, precipitation, Rec. XI, 419.

salts—

- action in animal economy, Rec. II, 530.
- direct absorption by plants, Rec. III, 490.
- effect on *Aspergillus niger*, Rec. IX, 922.
- effect on micro-organisms, Rec. VIII, 808.
- effect on plant growth, Rec. IX, 622.
- fixation by humic acid, Rec. IV, 388.
- for nematodes, Rec. XII, 62, 462.
- toxic effect, Rec. XI, 710.
- v. asparagin in digestion, Rec. II, 531.
- v. sodium nitrate as a fertilizer, Rec. X, 135.

sulphate— (See also SULPHATE OF AMMONIA.)

- change in weight on exposure to air, Rec. XII, 428.
- containing free sulphuric acid, Rec. XI, 627.
- effect on humus and nitrogen content of soils, Rec. XII, 727.
- effect on solubility of lime and potash in soils, Rec. XII, 623.
- fertilizing value, Rec. XI, 438.
- for destroying weeds, Rec. XII, 249, 351, 1052.
- for die-back, Rec. VIII, 63.
- in coke ovens, device for recovering, Rec. X, 717.
- production and consumption, Rec. X, 427.
- sulphid, elimination in quantitative analysis, Rec. VII, 745.
- superphosphate, purchasing, Rec. V, 651.
- thiocyanate, poisonous effects, Rec. VIII, 575.

Ammonite, analyses, Rec. XII, 840.

Ammophila—

- arenaria*, notes, Rec. VI, 418.
- arundinacea*, notes, Rec. IX, 421.
- longifolia*, notes, Rec. II, 321.
- prunosa* as an enemy of the codling moth, Rec. XII, 267.
- sabulosa*, notes, Rec. VIII, 912; XII, 469.

Ammunition bread, Rec. VIII, 719.

Amœba, agar cultures, Rec. IX, 29.

Amœba meleagridis, notes, Rec. XI, 985.

(See also BLACK HEAD OF TURKEYS.)

Amomum, notes, Rec. V, 655, 915.

Amorpha—

- canescens*, notes, Rec. III, 24, 522.
- fruticosa*, notes, Rec. III, 522.

Amorphophallus konjak, formation of mannan in, Rec. IX, 220, 523.

Ampelogypter sesostris, notes, Rec. X, 1076.

Ampelomyces quisqualis, parasitic, on powdery mildews, Rec. X, 1057.

Ampelopsis—
 blight, notes, Rec. IX. 657.
 disease, treatment, Rec. XI. 752.

Ampelopsis—
quinquefolia, notes, Rec. III. 521; IV. 656.
tricuspidata, notes, Rec. VIII. 314.
reitchii, notes, Rec. IV. 656.

Amphicarpaea monoica, notes, Rec. IX. 809; XI. 817.

Amphicarpum—
floridanum, notes, Rec. VIII. 380.
purshii, notes, Rec. VIII. 380.

Amphicerus—
bicaudatus, notes, Bul. 2. II. 11, 33; Rec. I. 120; VII. 697; VIII. 611, 803, 909; IX. 371; X. 766; XI. 366, 952.
punctipennis, notes, Rec. III. 812.

Amphistomum—
conicum, notes, Rec. II. 79.
hepaticum, notes, Rec. XI. 289.

Amphizoa lecontei, larva of, Rec. IV. 372.

Amputating brocade moth, Rec. IX. 855.

Amsiuckia—
intermedia, notes, Rec. III. 598.
lycopsoides, notes, Rec. III. 598.

Amur chokecherry, notes, Rec. III. 788.

Amure tamarisk, notes, Rec. VIII. 314.

Amygdalææ, hydrocyanic acid content, Rec. XI. 320.

Amygdalin—
 decomposition by micro-organisms, Rec. VI. 18.
 destruction by mold, Rec. IX. 660.

Amygdalus—
andersonii, notes, Rec. V. 589.
communis, notes, Rec. VIII. 230.

Amyl alcohol as a preservative for milk, Rec. II. 331.

Amyloid—
 in milk and milk products, Rec. IV. 390, 514; V. 949.
 investigations, Rec. IV. 516.
 - vegetable, study, Rec. III. 925.

Amylolytic ferments in feces, Rec. XII. 477.

Amylomyces rouxii, notes, Rec. VIII. 960.

Amylose, notes, Rec. VII. 91.

Amylotrogus—
discoideus, Rec. VIII. 607, 994.
filiformis, notes, Rec. VIII. 994.
lichenoides, notes, Rec. VIII. 994.
ramulosus, Rec. VIII. 607, 994.
vittiformis, notes, Rec. VIII. 994.

Amylum, tests for, Rec. V. 818.

Anacardium occidentale, notes, Rec. VI. 636; VIII. 231.

Anaerobic—
 bacteria, studies, Rec. XI. 194, 288.
 fermentation of manure, Rec. V. 147, 149.
 life tissues of living animals, Rec. IV. 873.

Anaerobism of tetanus bacilli, Rec. X. 597.

Anagallis arvensis, notes, Rec. III. 598.

Anagyrin and cytisin, localization, Rec. VII. 468.

Analysis—
 by electrolysis, treatise, Rec. X. 1004.
 chemical, for determining quality of pastures, Rec. V. 152.
 errors in, Rec. III. 379; V. 1097.

Analysis—Continued.

methods— (See also FEEDING STUFFS, FERTILIZERS, FOODS, etc.)
 improvement of, Rec. III. 632.
 international agreement, Rec. X. 19.
 newly proposed, Rec. II. 267.
 of Association of German stations, Rec. II. 522; IV. 612, 979; VI. 9; VII. 12; VIII. 447, 462; X. 817; XI. 505.
 Association of Official Agricultural Chemists, criticisms, Rec. IV. 584.
 Association of Official Chemists, Rec. I. 237; II. 89, 608; III. 632; IV. 115, 580; V. 510; VI. 178, 614; VII. 263, 921; VIII. 26, 272; IX. 226, 404, 808; X. 504, 606; XI. 204, 310, 533, 1007; XII. 503.
 Holland stations, Rec. V. 673.
 standard, Rec. VIII. 668.
 unification, Rec. VIII. 954; X. 413.
 organic, new method, Rec. III. 654, 818.
 prices charged by Halle Station, Rec. V. 364.
 qualitative, manual, Rec. VIII. 287.

Analytical—
 balances, improvements in, Rec. VI. 504.
 chemistry, principles, Rec. VI. 691.
 laboratories—
 of Belgium, Rec. V. 552, 553.
 State, Rec. XI. 619.

Anametis grisea—
 notes, Rec. VI. 1008.
 on peaches, Rec. IV. 285.

Ananassa sativa, notes, Rec. V. 92, 93; VII. 954.
 (See also PINEAPPLE.)

Anaphothrips striata, Rec. XII. 266, 468.

Anarsia lineatella, notes, Rec. IV. 417; IX. 571, 767, 858, 1065; X. 64, 65, 565; XI. 466.

Anasa—
armigera. (See SQUASH BUG, HORNED.)
tristis. (See SQUASH BUG.)

Anatis—
15-punctata, notes, Rec. IV. 417.
subvittata, notes, Rec. VI. 741.

Anatomy—
 and biology of phyloxera, Rec. V. 823, 1100.
 physiology of butterfly pupæ, Rec. VII. 44.
 physiology of plants, Rec. VIII. 471; X. 121, 321.
 physiology of sugar-beet seed, Rec. IX. 526.
 comparative, of—
 fruit of conifers, Rec. VI. 873, 968.
 the stomachs of ruminants, Rec. V. 732.
 of *Andropogon* spp., Rec. IX. 1027.
 assimilatory tissues of plants, Rec. X. 417.
 beet leaf, Rec. X. 418.
 Caprifoliaceæ, Rec. VIII. 28.
Carex sp., Rec. VIII. 289.
 cells of fungi, Rec. V. 345.
 cells of thread-like algæ, Rec. V. 345.
 Cornaceæ, Rec. V. 818.
 flowers of Cruciferae and Fumariaceæ, Rec. VII. 748.
 fruit of pear and apple, Rec. VIII. 204.
 galls, Rec. IX. 812.
 horses, Rec. IX. 594; X. 194.
 leaves, Rec. V. 650; VIII. 957.

Anatomy—Continued.

of leaves of—

- Distichlis spicata*, Rec. IX, 328.
- Eragrostis obtusiflora*, Rec. IX, 328.
- Jouvea* spp., Rec. IX, 328.
- Juniperus* spp., Rec. IX, 329.
- Phytolaccaceæ, Rec. VIII, 28.

of lower organisms, Rec. VIII, 566.

North American Gramineæ, Rec. VII, 277, 925.

plants from standpoint of classification, Rec. XI, 121.

Solanaceæ, Rec. IX, 624.

tracheal system of hymenopterous larvæ, Rec. V, 1031.

veins of lepidopterous insects, Rec. VII, 44.

winged fruits and seeds, Rec. IX, 329.

woody and succulent Compositæ, Rec. V, 923.

rôle in distinguishing critical species, Rec. VIII, 28.

Anchor ice, Rec. IX, 424.

Anchylosis of horses, Rec. X, 896.

Ancryacanthus bihamatus, n. sp., notes, Rec. IX, 1092.

Andrena—

- aliciarum*, notes, Rec. IX, 372.
- bicolor*, notes, Rec. X, 469.
- vicina*, notes, Rec. IX, 574; X, 469.

Andrœcium—

- and gynœcium of grasses, Rec. V, 253.
- of Philadelphus, Rec. V, 539.

Andromeda japonica, notes, Rec. XI, 271.

Andropogon—

- annulatus*, culture experiments, Rec. III, 860.
- bombycinus*, notes, Rec. X, 416.
- caricosus*, notes, Rec. VI, 694; VIII, 306.
- cirratus*, notes, Rec. II, 259.
- dissitiflorus*, analyses, Bul. 2, I, 108.
- erianthoides*, notes, Rec. IV, 248.
- furcatus*, notes, Rec. II, 321; V, 990; VIII, 780.
- halapense*, notes, Rec. VI, 715; IX, 1055.

(See also JOHNSON GRASS.)

- hallii*, notes, Rec. VI, 97, 531; VIII, 781
- hirtiflorus*, notes, Rec. II, 259.
- nardus*, notes, Rec. XII, 519.
- nutans*, notes, Rec. VI, 403; VIII, 780; X, 343.
- pertusus*, notes, Rec. VII, 396; VIII, 306.
- provincialis*, notes, Rec. I, 168; II, 329; III, 629; VI, 403.

saccharoides—

- notes, Rec. II, 259; VI, 694.
 - torreyanus*, notes, Rec. X, 343.
 - schœnanthus*, notes, Rec. XII, 519.
- scoparius*—
- analyses, Rec. III, 629.
 - notes, Rec. I, 168; II, 321, 329; III, 893; VI, 403; VIII, 780.

- sorghum*, notes, Rec. VI, 715.
- spp., anatomy, Rec. IX, 1027.
- squarrosus*, notes, Rec. XII, 519.
- virginicus*, notes, Rec. V, 663.
- wrightii*, notes, Rec. II, 259.

Anemia, pernicious and epizootic, in sheep, Rec. X, 95.

Anemone ranunculoides, parasites, Rec. VI, 436.

Anemometer—

- electric, for transmitting observations, Rec. XII, 1018.
- maximum, description, Rec. IX, 1034.
- safety fuse for lightning, Rec. X, 326.
- tests, Rec. XII, 119, 425.

Anemometers—

- installation, Rec. XII, 920.
- relative merits, Rec. VIII, 755.

Anemometric peculiarities, Rec. XII, 520.

Anemometry, Rec. XII, 1018.

Anemopsis californica, notes, Rec. III, 598.

Aneroid—

- barographs, use, Rec. IX, 630.
- barometers, Rec. X, 419, 827, 1018.

Anesthetics, effect on—

- formation on chlorophyll, Rec. XI, 119.
- germination, Rec. XI, 1056.
- respiration of plants, Rec. XII, 112.
- vegetable and animal protoplasm, Rec. XI, 118.
- vitality of dry or moist seeds, Rec. XI, 1056.

Angelica roseana, n. sp., description, Rec. XII, 24.

Angelica tree, notes, Rec. IV, 655.

Angina follicularis in connection with perityphlitis, Rec. IX, 194.

Angiosperm—

- ovules, physiology and morphology, Rec. VII, 748.
- seed, location of germ in, Rec. VII, 466.

Angiosperms—

- dissemination, Rec. VII, 468.
- formation of starch in, Rec. V, 434.
- phylogeny and taxonomy, Rec. IX, 421.
- physiology of the leptom in, Rec. VIII, 957.
- structure, Rec. VI, 487.
- transpiration, Rec. XI, 116.

Angitia armillata, notes, Rec. XII, 866.

Angleworms and warm rains, Rec. XI, 819.

Angophora—

- intermedia*, notes, Rec. XII, 455.
- lanceolata*, notes, Rec. XII, 455.
- subvelutina*, notes, Rec. XII, 455.

Angora goats. (See GOATS, ANGORA.)

Angoumois grain moth—

- in Pennsylvania, Rec. IV, 84.
- notes, Rec. II, 718; III, 175, 702, 813; IV, 57, 253; V, 327, 402, 410; VI, 235, 314, 438, 740; VII, 43, 515; VIII, 610; IX, 66, 260; XI, 762, 871, 955; XII, 1062.
- parasite, Rec. VII, 793.
- remedies, Rec. VIII, 241.

Anguillula—

- arenaria*, notes, Rec. I, 185.
 - radicicola*, notes, Rec. I, 185.
- (See also HETERODERA.)

Anhalonium—

- anatomy, Rec. VIII, 670.
- revision of species, Rec. VI, 190.

Anhalonium williamsii, notes, Rec. VI, 190.

Anilin—

- colors in wines, detection, Rec. VI, 612; VIII, 742.
- orange, detection in milk, Rec. XII, 823.
- rose pink as a preservative for milk, Rec. II, 331.

Animal—

and meat inspection, Rec. V, 608.
and plant breeding, improvement, Rec. IX, 649.

and vegetable—

cells, coloring matter, Rec. VII, 839.
fats, determination, Rec. VIII, 667.
life as affected by light and heat, Rec. VI, 512.
tissues, detection of phosphorus, Rec. X, 608.

body—

action of carbonic acid on diastatic ferments of, Rec. V, 732.
assimilation of lime and phosphoric acid by, Rec. V, 1020.
chemical changes in, Rec. IX, 581.
distribution of fat and protein, Rec. IX, 373.
effect of blood serum of other animals, Rec. XI, 892.
effect of copper on, Rec. VII, 336; X, 81.
effect of light on, Rec. VI, 332.
formation of fat in, Rec. VIII, 179; IX, 275.
formation of hippuric acid in, Rec. IX, 475.
formation of urea in, Rec. V, 1101.
iodin in, Rec. VII, 616; VIII, 254.
metabolism of nutrients in. (*See* METABOLISM.)
storing and excretion of iron by, Rec. V, 1031.

cell phenomena, Rec. IX, 29.

cellulose, studies, Rec. V, 252.

diseases. (*See also specific diseases.*)

diseases—

as affected by acids, Rec. VII, 253.
atmospheric infection, Rec. XII, 790.
bacteria as related to, Rec. III, 336.
bacteria in, Rec. V, 512, 734.
bacterial, Rec. VII, 618.
contagious and infectious, Rec. V, 454, 1041.
contagious, in foreign countries, Rec. V, 608.
contagious, laws concerning, Rec. III, 729; V, 608; VI, 164; VII, 253; VIII, 626; IX, 894; X, 999; XII, 597.
control, Rec. XII, 395.
formaldehyde in, Rec. IX, 390.
in Great Britain and Ireland, Rec. VII, 712.
infectious, prophylaxis, Rec. XII, 489.
manual, Rec. XI, 591.
pathology and therapy, Rec. XII, 596.
prevention, Rec. VIII, 525.
streptococci in, Rec. V, 511.
text-book, Rec. XII, 596.
transmissible to man, Rec. X, 896.

excrement, composition, Rec. V, 142.

experimentation, influence on agriculture, Rec. VIII, 268.

fat, determination, Rec. VIII, 667; X, 20.

fats—

chemistry, Rec. IX, 25, 419.
refractive index, Rec. III, 929.

foods, digestibility, Rec. IX, 780.

Animal—Continued.

heat—

chemistry of, Rec. XI, 482.
sources, Rec. V, 438.

hide and tannin, Rec. V, 927.

husbandry—

agriculture without, Rec. V, 656, 823.
in Denmark, Rec. VII, 249; IX, 88.
text-book, Rec. V, 823.

industry—

and public health, Rec. V, 1046.
Bureau, report for 1895 and 1896, Rec. IX, 894.
commercial aspect, Rec. XII, 678.
in Denmark, Germany, and Great Britain, Rec. XII, 98.
index to literature, Rec. XII, 501, 878.
work of Federal Government, Rec. XII, 488.

manures, analyses, Rec. I, 141.

matter—

for poultry, Rec. XI, 397.
iron in, Rec. VII, 18.

meal—

analyses, Rec. VIII, 1003; XI, 279; XII, 70, 281, 472, 587.
for pigs, Rec. XI, 483.
r. cut bone for egg production, Rec. IX, 377; X, 676; XI, 573.

metabolism, investigations, Rec. VII, 815.

nutrition, Rec. X, 481.

nutrition—

fat in, Rec. V, 258.
sugar in, Rec. VI, 931.

parasites, Rec. IV, 285, 749; VI, 81, 470, 654, 932; VII, 806; VIII, 525; IX, 252, 392, 1100.

parasites—

monograph, Rec. X, 193.
of ducks and chickens, Rec. VIII, 626.
geese, check list, Rec. IX, 392.
Nebraska, Rec. IX, 994.
statistics, Rec. XII, 598.
symptomology, Rec. X, 497.
transmission to man, Rec. IV, 852.
treatment, Rec. V, 517; VI, 654.

parasitism as applied to medicine, Rec. VII, 806.

physiology as related to agriculture, Rec. XI, 482.

plants, so-called, Rec. VIII, 419.

production—

handbook, Rec. XI, 184.
methods, Rec. X, 82.

products—

exports, Rec. IX, 599.
imports and exports, Rec. XI, 998.
statistics, Rec. VIII, 442.

refuse—

ammonia prepared from, Rec. V, 436.
analyses, Rec. III, 864.

secretions and organs, action on the polysaccharids, Rec. VII, 834.

serum for prevention of tetanus, Rec. VII, 156.

statistics, collection in Switzerland, Rec. V, 262.

Animal—Continued.

- substances, determination of fat, *Rec. IX*, 618.
- tissues, formaldehyde for hardening, *Rec. VI*, 473.
- v.* vegetable food for poultry, *Rec. VIII*, 425. *XI*, 76; *XII*, 276.
- Animalcules as affected by cold, *Rec. IX*, 423.
- Animals—
 - acclimatization, *Rec. XI*, 296.
 - and plants—
 - exchange of gases between, *Rec. V*, 729.
 - fundamental differences, *Rec. VI*, 786.
 - geographical distribution in North America, *Rec. VII*, 471.
 - interdependence, *Rec. VII*, 839.
 - reproduction in, *Rec. VII*, 371.
 - as affected by—
 - bacillus of black plague of man, *Rec. XI*, 91.
 - copper, *Rec. X*, 81.
 - humidity of the air in warm weather, *Rec. IV*, 986.
 - light, *Rec. IV*, 615, 986; *VI*, 332.
 - smut spores, *Rec. XI*, 91.
 - X-rays, *Rec. IX*, 377.
 - as machines, *Rec. VIII*, 332, 521.
 - assimilation of inorganic food constituents, *Rec. V*, 822.
 - breeding, *Rec. V*, 540.
 - breeding—
 - heredity, *Rec. VII*, 64.
 - regulation of sex, *Rec. X*, 522.
 - calculation of rations, *Rec. IX*, 276; *XI*, 184.
 - cooking and steaming food for, *Rec. VI*, 445.
 - destructive to forests, examination, *Rec. IX*, 530.
 - diseased—
 - traffic in, *Rec. XII*, 994.
 - use as food, *Rec. VIII*, 332.
 - disposal of carcasses, *Rec. X*, 96.
 - excretion of metabolized nitrogen, *Rec. VII*, 817.
 - farm. (*See FARM ANIMALS.*)
 - feeding, *Rec. X*, 678.
 - feeding—
 - experiments in Canada, *Rec. XII*, 178.
 - in time of drought, *Rec. IX*, 1080.
 - spores of stinking smut to, *Rec. V*, 927.
 - wheat, *Rec. VI*, 255.
 - (*See also different kinds of animals and feeding stuffs.*)
 - formation of pentoses in, *Rec. VIII*, 106, 513.
 - fruits for, *Rec. VI*, 76.
 - importation without permits, *Rec. XII*, 830.
 - in Belgium in 1892, sanitary condition, *Rec. V*, 824.
 - injurious, methods of combating, *Rec. VI*, 695; *XII*, 820.
 - insect pests, *Rec. XI*, 263.
 - law regulating slaughter, *Rec. XII*, 690.
 - narcosis, *Rec. XI*, 291.
 - noxious, danger of introducing, *Rec. XI*, 425.
 - parasitic infections of liver, *Rec. IX*, 889.
 - physical conditions of, in feeding experiments, *Rec. III*, 813.
 - poisoning by nitrate of soda, *Rec. VII*, 526.

Animals—Continued.

- respiration experiments *Rec. XI*, 80.
- sanitary regulations, *Rec. XI*, 592.
- shoeing, *Rec. VIII*, 1016.
- sugar for, *Rec. VII*, 425, 708; *VIII*, 323.
- tuberculosis in, *Rec. VI*, 245; *VII*, 252, 893.
- useful and injurious to horticulture, *Rec. IX*, 629.
- Anise—
 - culture, *Rec. IX*, 357.
 - oil residue, digestion experiment, *Rec. V*, 1032.
- Anisoplia—
 - agricola*, affecting cereals, *Rec. XI*, 1057.
 - austriaca*, remedies, *Rec. XI*, 658.
- Anisopogon avenaceus*, value for pasture, *Rec. VIII*, 491.
- Anisopteryx—
 - pometaria*. (*See CANKERWORM, FALL.*)
 - vernata*, notes, *Bul. 2*, *II*, 118; *Rec. II*, 81, 669; *III*, 197, 313; *VII*, 126; *VIII*, 505, 906, 998, 999; *IX*, 662; *X*, 62.
- Anisota—
 - rubicunda*, notes, *Rec. I*, 120; *Rec. II*, 81, 116; *III*, 53.
 - senatoria*, notes, *Rec. II*, 64, 101; *IV*, 838; *IX*, 370.
 - virginiensis*, notes, *Rec. II*, 64.
- Anisotropic microscopic objects, estimation of refraction, *Rec. V*, 433.
- Anixiopsis stercorarius, notes, *Rec. IX*, 450.
- Anjan grass, notes, *Rec. VI*, 94.
- Ankylostomiasis of horses, *Rec. X*, 497.
- Ankylostomum trigenocephalum*, notes, *Rec. IX*, 1092.
- Annanas disease of sugar cane, *Rec. V*, 1099.
- Annual poa, culture experiments, *Rec. X*, 244.
- Annuals, showy, notes, *Rec. X*, 356.
- Anobium domesticum*, notes, *Rec. VI*, 742; *VII*, 231.
- Anomola—
 - binotata*, notes, *Rec. IV*, 839.
 - lucicola*, notes, *Rec. V*, 403.
 - varians*, notes, *Rec. II*, 80.
- Anona—
 - cherimolia*, notes, *Rec. VI*, 636.
 - muricata*, notes, *Rec. VI*, 636.
- Anonaceæ of British India, *Rec. VI*, 278.
- Anopheles— (*See also MOSQUITOES.*)
 - bifurcatus*—
 - distribution, *Rec. XII*, 889.
 - notes, *Rec. XI*, 957.
 - claviger*—
 - distribution, *Rec. XII*, 889.
 - notes, *Rec. XI*, 957.
 - maculipennis*, life history, *Rec. XII*, 1068.
 - pictus*, distribution, *Rec. XII*, 889.
 - pseudopictus*—
 - distribution, *Rec. XII*, 889.
 - notes, *Rec. XI*, 957.
 - superpictus*, notes, *Rec. XI*, 957.
- Anopheles—
 - notes, *Rec. XII*, 485.
 - resting position, *Rec. XII*, 769.
- Anoplostethus opalinus*, notes, *Rec. XII*, 1067.
- Anoxus* spp., notes, *Rec. IV*, 852.
- Antapлага koebeli*, notes, *Rec. V*, 328.

Antarctic regions, German expedition, Rec. XII, 920.

Antennaria plantaginifolia, notes, Rec. IV, 472.

Antennophorus uhlmanni, notes, Rec. VIII, 913; IX, 472.

Anthaxia xeneogaster, notes, Rec. III, 812.

Anthemis—

arvensis—

notes, Rec. III, 616.

root system, Rec. IV, 46.

cotula—

notes, Rec. III, 308, 893; IV, 47; V, 398; VI, 822.

root system, Rec. IV, 46.

Antheraea eucalypti, notes, Rec. IX, 260.

Anthidium consimile, notes, Rec. VII, 699.

Anthistritia—

avenacea, notes, Rec. X, 416.

ciliata, notes, Rec. X, 416.

membranacea, notes, Rec. X, 416.

Anthomyia, bibliography, Rec. XII, 867.

Anthomyia—

betæ, notes, Rec. V, 740; VI, 65; VII, 882; IX, 74.

brassicæ, notes, Bul. 2, I, 101; Rec. III, 198, 359; IV, 172, 254; VI, 65; VIII, 1003; X, 65.

ceparum, notes, Rec. VII, 230.

grandis, notes, Rec. VII, 312.

radicum, notes, Rec. III, 198; VIII, 612.

signatus, notes, Rec. VII, 147, 767.

sp., notes, Rec. III, 198; IV, 839; V, 101; VIII, 146.

Anthonomus—

grandis, notes, Rec. VI, 1001; VIII, 142, 1001; IX, 370; X, 159.

(See also COTTON BOLL WEEVIL.)

musculus, notes, Bul. 2, I, 92; Rec. III, 359; IV, 415; V, 938.

nigrinus, notes, Rec. VI, 1002; X, 61.

pomorum—

affecting fruits, Rec. XI, 1057.

notes, Rec. V, 740; VI, 65; VIII, 611; X, 65; XI, 870.

remedies, Rec. XII, 272.

prunicida, notes, Rec. II, 269.

quadrigibbus, notes, Rec. II, 332; III, 313; V, 310; X, 165, 273, 871.

signatus—

notes, Rec. IV, 688, 839; VI, 562, 835, 836; IX, 261, 662, 670; X, 66; XI, 952; XII, 368.

parasites, Rec. IV, 669.

Anthopæin, notes, Rec. XII, 912.

Anthophilax attenuatus, notes, Rec. X, 168.

Anthophyta of West Virginia, Rec. IV, 642.

Anthostomella sphaerotheca, notes, Rec. X, 725.

Anthoxanthum odoratum—

analyses, Rec. XII, 471.

culture experiments, Rec. III, 860.

notes, Rec. II, 601, 633; III, 29.

Anthracite coal—

ashes, analyses, Rec. VIII, 389.

dust as a fertilizer, Rec. VII, 197.

Anthracnose, treatment, Rec. V, 731; VI, 647.

Anthracnoses—

comparative study, Rec. X, 764.

development in artificial cultures, Rec. VIII, 204.

secondary spores, Rec. V, 401.

(See also different host plants.)

Anthrax—

and edema, relation, Rec. VI, 164.

rouget, inoculation against, Rec. VI, 80.

as affected by creolin, Rec. XI, 894.

bacilli, effect of water, Rec. X, 596.

bacillus—

agglutination by human blood, Rec. XI, 393.

as affected by lecithin, Rec. XI, 893.

as affected by pyrocyanase, Rec. XII, 490.

biology, Rec. XI, 92.

differential diagnosis, Rec. XI, 985.

disappearance after death, Rec. VI, 244.

dissolution, Rec. XII, 989.

effect on immunized sheep, Rec. XI, 890.

effect on leucocytes, Rec. XII, 1084.

form resembling, Rec. XI, 493.

in milk, Rec. V, 729, 973, 1045.

in mud from a well, Rec. IV, 873.

interaction with specific antitoxin, Rec. XI, 890, 1091.

liquefaction of gelatin, Rec. XII, 597.

notes, Rec. VII, 20.

physiology of spore formation, Rec. VIII, 524.

plasmolysis, Rec. XI, 893.

production of toxin, Rec. XI, 795.

reaction in a colored nutrient medium, Rec. XI, 794.

recognition, Rec. VIII, 335.

resistance of spores on different substances, Rec. XII, 989.

studies, Rec. VI, 666; XI, 193, 286.

variety, Rec. XII, 892.

bacteriology, Rec. VIII, 524; IX, 594; X, 496.

biology and method of contagion, Rec. XI, 893.

carcasses, destruction, Rec. XII, 1088.

conferring immunity in reindeer, Rec. XII, 490.

control, Rec. XII, 691.

culture tests in suspected cases, Rec. XII, 787.

cultures, virulence as affected by different conditions, Rec. XI, 893.

destroying, in soil, Rec. XI, 894.

diagnosis, Rec. XI, 894; XII, 792, 1088.

effect on bile, Rec. XI, 695.

emphysematous, Rec. XI, 1091.

epidemic, Rec. X, 496, 998.

growth on various culture media, Rec. XI, 893.

history, symptoms, and treatment, Rec. VIII, 625.

immunity of lymphatic glands to, Rec. XI, 995.

in Delaware, Rec. IX, 92, 496.

dogs, Rec. XII, 193.

domestic animals, notes, Rec. VII, 66; VIII, 626.

Great Britain, Rec. VI, 245; IX, 892.

horses—

and mules, Rec. II, 318.

treatment, Rec. XII, 490.

Louisiana, Rec. XII, 787.

man, Rec. VII, 156.

New South Wales, Rec. XI, 695.

New York, Rec. XI, 492.

Norway, Rec. XI, 693.

Anthrax—Continued.

- in Pennsylvania, *Rec.* VII, 252; XII, 684.
 - rabbits, *Rec.* V, 823.
 - sheep, nature and treatment, *Rec.* III, 619.
 - swine, *Rec.* VII, 805.
 - the lungs, *Rec.* X, 192.
 - West Gothland, *Rec.* XI, 393, 695.
 - infection, influence of extracts of thymus and testicles on, *Rec.* V, 734.
 - infested animal hair, disinfection, *Rec.* XI, 695.
 - inoculation for, *Rec.* V, 353, 1101; VII, 252; VIII, 268; X, 595.
 - investigations, *Rec.* II, 159; III, 729.
 - legislation, *Rec.* X, 396.
 - nature and remedies, *Rec.* XI, 393.
 - notes, *Rec.* II, 159, 411; IV, 75; V, 204, 413, 740; VI, 845, X, 296, 397; XI, 91, 92, 288, 995; XII, 488, 685, 790, 793, 892.
 - outbreaks, *Rec.* XII, 884, 892.
 - prevention, experiments, *Rec.* V, 1101.
 - preventive inoculation, *Rec.* XI, 793.
 - relation of agglutinins to lysins, *Rec.* XI, 494.
 - remedies, *Rec.* II, 160.
 - serum tests, *Rec.* XI, 795.
 - studies, *Rec.* XII, 92.
 - symptomatic. (*See* BLACKLEG.)
 - symptoms and treatment, *Rec.* I, 101.
 - toxin, studies, *Rec.* VII, 526.
 - transmission, *Rec.* II, 160; X, 893; XI, 893; XII, 691.
 - transmission—
 - by insects, *Rec.* XI, 995.
 - sphalangi, *Rec.* XII, 537.
 - to man, *Rec.* XI, 393.
 - treatment, *Rec.* IX, 391.
 - treatment with creolin, *Rec.* XII, 193.
 - vaccination for, *Rec.* V, 1033; VI, 666; VII, 617; VIII, 523; IX, 93, XI, 190, 193.
 - vaccination for tuberculosis, *Rec.* IX, 496.
 - vaccines, preparation, *Rec.* IX, 496; X, 596, 694.
 - virus, inoculation experiments, *Rec.* V, 734.
- Anthrax sinuosa*, notes, *Rec.* IX, 965.
- Anthrenus*—
- scrophulariæ*, notes, *Rec.* I, 224; VI, 561, 1007; VII, 312, 880; VIII, 241, 906; IX, 64, 858; X, 1066.
 - varius*, notes, *Rec.* XII, 618.
 - verbasci*—
 - natural enemy of the gypsy moth, *Rec.* XI, 560.
 - notes, *Rec.* IX, 66, 853.
- Anthriscus sylvestris*, notes, *Rec.* V, 449.
- Anthurium*, fertilization, *Rec.* XII, 612.
- Anthurium*—
- scherzerianum*, crossing, *Rec.* XII, 613.
 - spp., notes, *Rec.* V, 401.
- Anthyllis vulneraria*. (*See also* KIDNEY VETCH.)
- analyses, *Rec.* IX, 268; X, 72.
 - as a forage plant, *Rec.* III, 51; V, 346, 820.
 - culture experiments, *Rec.* IV, 646.
 - notes, *Rec.* III, 51, 85; V, 171, 577; VI, 34, 294, 531.
- Anthysanus instabilis*, notes, *Rec.* V, 791.

- Antianthrax substances, behavior in dogs and rabbits, *Rec.* XI, 1091.
- Antidromy, internal, *Rec.* VIII, 471.
- Antifebrin for acute laminitis, *Rec.* XI, 394.
- Antiherbium, tests, *Rec.* XI, 1057.
- Antileucocyte serums, study, *Rec.* XII, 598.
- Antinonniin—
 - analyses, *Rec.* VI, 110.
 - preparation and use, *Rec.* V, 684.
- Antiope butterfly. (*See* *Vanessa antiope*.)
- Antiplague serum, technique of inoculation for *Rec.* XI, 1090.
- Antipneumonic serums, *Rec.* IX, 193.
- Antipyretics, use for prevention of tuberculin reaction, *Rec.* XII, 597.
- Antirabies—
 - vaccination, *Rec.* XII, 598.
 - vaccination in St. Petersburg, *Rec.* XII, 692.
- Antirrhinum majus*—
 - anthracnose, notes, *Rec.* XII, 964.
 - stem rot, notes, *Rec.* XII, 964.
- Antisepsis, physiological, *Rec.* V, 1028
- Antiseptic—
 - power of iodoform, *Rec.* XI, 496.
 - treatment of wounds, *Rec.* IV, 360.
- Antiseptics—
 - action on diseases of wines, *Rec.* VI, 170.
 - effect on—
 - digestion of blood by pepsin, *Rec.* X, 80.
 - wine micro-organisms, *Rec.* XI, 126.
 - for milk, *Rec.* XI, 580.
 - milk, influence, *Rec.* IV, 870.
 - in dairying, *Rec.* IV, 317; V, 824, 928, 1047.
 - tests, *Rec.* XII, 991.
- "Antispire" system—
 - analyses of bread made by, *Rec.* XI, 481.
 - of bread making, *Rec.* XI, 478.
- Antistreptococcic serum, notes, *Rec.* XII, 292.
- Antitetanus serum, *Rec.* XI, 288.
- Antitoxin—
 - for castor-bean poisoning, *Rec.* IX, 526.
 - new, for diphtheria, *Rec.* IX, 193.
 - presence in normal horses, *Rec.* XI, 794.
- Antitoxins—
 - effect in digestive canal, *Rec.* XI, 194.
 - relations to specific organisms, *Rec.* VIII, 472.
- Antityphic substances, origin, *Rec.* XI, 689.
- Antivivisection bill, *Rec.* IX, 195.
- Antler moth, notes, *Rec.* VI, 317.
- Ants— (*See also* FORMICIDÆ.)
 - adaptation in nest making, *Bul.* 2, I, 177.
 - and myrmecophilous insects from Toronto, *Rec.* IX, 468.
 - plants, *Rec.* VII, 698.
 - wasps, tropical, nests, *Rec.* VI, 151.
- aphids and coccids associating with, *Rec.* IX, 468.
- as affecting fruits, *Rec.* V, 901.
- enemies of cotton worm, *Rec.* II, 319.
- black, as parasites of the gypsy moth, *Rec.* III, 870.
- Coleoptera found with, *Rec.* VII, 792.
- effect of leucocytes in metamorphosis, *Rec.* XI, 870.
- foraging, notes, *Rec.* XII, 580.
- house, remedies, *Rec.* IX, 65.

Ants—Continued.

- leaf-cutting, treatment, Rec. IV, 84.
- muscles, Rec. VII, 517.
- natural history, Rec. IX, 773.
- nest coccid, new, Rec. IX, 1070.
- nests, studies, Rec. X, 68.
- notes, Rec. I, 224; X, 168, 654; XI, 955.
- of French Kongo, list, Rec. VII, 44.
- Madagascar, notes, Rec. XI, 870.
- parasites, Rec. IX, 472.
- pavement, notes, Rec. X, 654.
- red—
 - notes, Rec. VI, 440; X, 654.
 - remedies, Rec. IX, 772.
- remedies, Bul. 2, I, 91, 101; VIII, 68; XI, 341.
- white—
 - as tea pests, Rec. VIII, 70.
 - notes, Rec. VII, 593, 883; IX, 64; XII, 465.
 - on carnations, remedies, Rec. XI, 1065.
- worker, anatomy and physiology, Rec. VII, 699.

Antwerp, Belgium, State Laboratory, reports,
Rec. VII, 745; VIII, 378.

Aonidia—

- aurantii*. (See SCALE, CALIFORNIA RED.)
- fusca*—
 - identity, Rec. VII, 698.
 - notes, Rec. IX, 670.

Apanteles—

- congregatus*—
 - notes, Rec. II, 116; VI, 235; VIII, 998.
 - parasitic on *Protoparce carolina*, Rec. X, 1060.
- glomeratus*, notes, Rec. IV, 204; VII, 144.
- hyphantrix*, notes, Rec. II, 116.
- orgyia*, notes, Rec. V, 311.
- sp., notes, Bul. 2, II, 94.

Apateta—

- brumosa*, notes, Rec. II, 64.
- lepusculina*, notes, Rec. IV, 354.
- oblinita*, notes, Rec. II, 406.
- trilona*, notes, Rec. III, 53.

Apatelodes torrefacta, notes, Rec. IV, 839.

Apatite—

- analyses, Rec. VIII, 880, XI, 230; XII, 626.
- for potatoes, Rec. III, 159.
- solubility in water, Rec. X, 218.
- variation in composition, Rec. VII, 942.

Apatura—

- celtis*, notes, Rec. III, 318.
- clifton*, notes, Rec. III, 318.

Aphalaria on celery, Rec. V, 791.

Aphelenchus—

- foliicoleus*, notes, Rec. III, 308.
- oleisus*, notes, Rec. V, 517.
- sp. in asters, Rec. IV, 930.
- sp., notes, Rec. III, 327.

Aphelinæ of North America, revision, Rec. VII, 516.

Aphelinus—

- fuscipennis* on San José scale, Rec. VI, 1001; X, 1064; XII, 861.
- mali*, notes, Rec. V, 311.

Aphidius—

- fletcheri*, notes, Rec. XII, 362.
- lactuca*, notes, Rec. IX, 962.
- persiaphis*, notes, Rec. II, 731.

Aphids—

- and coccids associating with ants, Rec. IX, 468.
- thrips as a cause of bacteriosis of carnations, Rec. IX, 251.
- biology and morphology, Rec. X, 169.
- food habits, Rec. IV, 851.
- hibernation, Rec. VII, 792.
- insecticides for, Rec. VIII, 242.
- in Italy, Rec. XII, 469.
- notes, Rec. I, 45; II, 81, 253, 268, 269, 281, 673; V, 206, 498, 992; X, 268, 459; XI, 476.
- of Coniferae, monograph, Rec. IX, 371.
- on cotton, notes, Rec. V, 63.
- grass roots in Russia, Rec. IX, 575.
- parasitic and predaceous enemies, Rec. V, 1031; VI, 568; VII, 231, 413, 596, 699, 882; VIII, 70, 614.
- remedies, Rec. X, 661, 871.
- root, Rec. VIII, 801.

Aphis—

- amygdali*, notes, Rec. VIII, 911.
- brassicæ*. (See CABBAGE APHIS.)
- citricola*. (See MELON LOUSE.)
- coffea*, notes, Rec. VIII, 807.
- cucumeris*. (See MELON LOUSE.)
- cuonymbi*, notes, Rec. V, 991.
- fabæ*, notes, Rec. XI, 370.
- forbesi*. (See STRAWBERRY ROOT LOUSE.)
- gossypii*. (See MELON LOUSE.)
- granaria*. (See GRAIN APHIS.)
- maid-radiceis*, notes, Rec. III, 637; VI, 314.
- maidis*, notes, Rec. II, 269; III, 175; VI, 314.
- mali*. (See APPLE APHIS.)
- malifoliae*, natural enemies, Rec. II, 241.
- nerii*, notes, Rec. IX, 260.
- papaveris*, notes, Rec. IX, 260.
- persica-niger*. (See PEACH APHIS, BLACK.)
- phuscoli*, notes, Rec. XI, 370.
- pruni*, notes, Rec. VIII, 809.
- prunicola*. (See PEACH APHIS, BLACK.)
- prunifoliae*, notes, Rec. IX, 767.
- prunifolii*, notes, Rec. III, 230, 889; X, 164.
- ribis*, notes, Rec. VIII, 146; X, 164.
- rosa*, notes, Rec. X, 65.
- rubicola*, notes, Rec. IV, 839.
- rumicis*, notes, Rec. V, 991; XII, 368.
- sp., notes, Rec. X, 164.
- sp. on sugar beets, Rec. XII, 166.
- ulmaræ*, notes, Rec. XI, 563.

Aphis—

- apple. (See APPLE APHIS.)
- cabbage. (See CABBAGE APHIS.)
- grain. (See GRAIN APHIS.)
- green, kerosene emulsion and tobacco water for, Rec. I, 294.
- woolly—
 - attacking pear trees, Rec. XI, 476.
 - enemies, Rec. II, 241.
 - in England, Rec. VIII, 613.
 - injuring roots of apple seedlings, Rec. IV, 922.

Aphis—Continued.

woolly—continued.

- kerosene emulsion for, **Rec. I**, 294.
 notes, **Rec. I**, 294; **II**, 70, 241, 419; **III**, 230, 396, 889; **IV**, 204, 254; **V**, 310, 498, 594, **VI**, 315, 316, 568, 917; **VII**, 42, 143, 231, 700; **VIII**, 68, 69, 507, 613, 906, **IX**, 155, 862, **X**, 68, 164, 269, 766, 768, 1060, 1063; **XI**, 170, 760, 870, 1057; **XII**, 68, 365, 664, 861, 869, 974, 1058.
 on fruit trees, **Rec. XI**, 174.
 origin, **Rec. XI**, 174.
 parasites, **Rec. III**, 546; **IX**, 155.
 remedies, **Rec. I**, 294; **IX**, 74, 155, 156, 261, 262; **X**, 661; **XI**, 871; **XII**, 578, 664.

Lophodius—

- finetarius*, on mushrooms, **Rec. V**, 348.
granarius, notes, **Bul. 2**, 1, 91; **Rec. X**, 169.
trogodytes, n. sp., **Rec. VI**, 440.

Aphonus tridentata, notes, **Rec. IV**, 354.*Aphrophora quadrangularis*, notes, **Rec. IV**, 839.

Aphtha—

- in horses, **Rec. X**, 497.
 sporadic, studies, **Rec. XII**, 92.

Apthous fever. (See also FOOT-AND-MOUTH DISEASE.)

- in Turkey, **Rec. XI**, 593.
 prevention, **Rec. XI**, 92.
 serum therapy, **Rec. XI**, 593.
 treatment, **Rec. XI**, 493, 921.

Aphyllon uniflorum, notes, **Rec. II**, 22.Apiarian exhibit at Columbian Exposition, **Rec. V**, 900.Apiaries, management, **Rec. I**, 297.Apiary, experiments in, **Rec. XI**, 1099; **XII**, 658.Apicultural calendar, **Rec. VII**, 413.

Apiculture. (See also BEES.)

- elements, **Rec. X**, 768.
 experiments, **Rec. II**, 6, 496; **III**, 532; **V**, 101.
 history, **Rec. X**, 660.
 in Siberia, **Rec. XII**, 663.
 manual, **Rec. VIII**, 413; **XI**, 369.
 methods, **Rec. X**, 660.
 modern, **Rec. X**, 871.
 notes, **Rec. II**, 295, 423, 660.
 simplified, **Rec. VIII**, 806.
 studies, **Rec. XI**, 172.
 test of honey plants, **Rec. II**, 279.
 text-book, **Rec. IX**, 967.

Apioceridæ, notes, **Rec. IV**, 852.

Apion—

- apricans*, notes, **Rec. IX**, 74; **XII**, 1059.
assimile, notes, **Rec. XII**, 1059.
pisi, notes, **Rec. IX**, 74.
trifolii, notes, **Rec. XII**, 1059.

Apios tuberosa, analyses, **Rec. XII**, 677.*Apiosporum brasiliense*, n. sp., notes, **Rec. XI**, 59, 260.

Apis—

- dorsata*, notes, **Rec. IX**, 469; **XII**, 867, 974.
flava, notes, **Rec. IX**, 469.
florea, notes, **Rec. IX**, 469.
indica, notes, **Rec. IX**, 469.
medifica, notes, **Rec. IX**, 965.

Aplettrum, mycorrhizæ **Rec. IX**, 812.*Aptlopappus interior*, notes, **Rec. VI**, 114.

Apocynum—

androsæmifolium—

- analyses, **Rec. III**, 629.
 notes, **Rec. V**, 398.

cannabinum—

- notes, **Rec. III**, 598; **VI**, 207.
 root system, **Rec. IV**, 45.

sibericum, as a textile plant, **Rec. XI**, 538.*venetum*, as a textile plant, **Rec. XI**, 538.*Apoderus coryli*, notes, **Rec. X**, 65.Apogamy, studies, **Rec. X**, 223.*Apogonia destructor*, notes, **Rec. VII**, 698.Apoidea, classification, **Rec. XI**, 271.

Apoplexy, parturient. (See MILK FEVER.)

Apparatus—

- chemical, **Rec. VI**, 776; **X**, 717, 820, 821.
 chemical, an aliquotimeter, **Rec. II**, 482.
 constant temperature, **Rec. X**, 118.
 continuous pressure and suction for constant temperature above 100°, **Rec. IV**, 782.
 for applying electric current to microscopic objects, **Rec. X**, 418.
 detecting trichinæ, **Rec. XI**, 290.
 determinations requiring low temperatures, **Rec. VI**, 504.
 determining the effective diameter of soil grains, **Rec. XI**, 524.
 distilling water, **Rec. XI**, 313.
 evaporation in vacuo and under pressure, **Rec. X**, 1005.
 fixing and hardening material, **Rec. X**, 123.
 high pressure, **Rec. XI**, 313.
 incinerating plants, **Rec. XI**, 304, 506, 511.
 measuring work performed by man, **Rec. XI**, 777.
 pasteurizing and sterilizing, **Rec. XI**, 714.
 plant study, **Rec. XI**, 28.
 preventing backward flow of water, **Rec. XI**, 619.
 registering—
 growth of plants, **Rec. XI**, 911.
 variations in weight, **Rec. IX**, 1080.
 root pressure, **Rec. X**, 417.
 seed examination, **Rec. XI**, 156, 750.
 gasometric, **Rec. X**, 118.
 measuring, regulations for construction, **Rec. X**, 21.
 new filtering, **Rec. XI**, 313.
 new form of potash bulb, **Rec. XI**, 313.
 pasteurization, **Rec. V**, 345, 541; **IX**, 388, 689; **X**, 493, 784; **XI**, 387; **XII**, 85.
 reflux condenser, **Rec. XI**, 814.
 spraying, **Rec. XI**, 259, 262.

Apple—

aphis—

- natural enemies, **Rec. II**, 241.
 notes, **Bul. 2**, 11, 58; **Rec. II**, 241; **III**, 197, 313, 889; **IV**, 254, 354; **VI**, 151, 568, 654; **VII**, 230; **VIII**, 68, 69, 3-1, 611, 906; **IX**, 1065. **X**, 65, 164, 766, 1042, 1066; **XI**, 170; **XII**, 62, 68, 268, 465, 861, 863.
 remedies, **Rec. XI**, 1042, **XII**, 1065.
 woolly. (See APHIS, WOOLLY.)
 Baldwin spot, notes, **Rec. XII**, 56, 570.
 Balsam, herbaceous grafting, **Rec. II**, 508.

Apple—Continued.

- bitter pit, notes, *Rec. VII*, 695.
 bitter rot—
 notes, *Rec. III*, 860; *IV*, 354, 837; *V*, 497, 1076; *VI*, 558; *VII*, 38, 874; *IX*, 762; *XI*, 260.
 treatment, *Rec. I*, 169, 170; *II*, 32; *III*, 689, 878.
 black rot—
 notes, *Rec. IX*, 847; *XI*, 260.
 study, *Rec. X*, 865.
 blight—
 bacterial, *Rec. XI*, 260.
 notes, *Rec. VI*, 431, 560; *X*, 648; *XI*, 314.
 prevalence, *Rec. IV*, 412.
 treatment, *Rec. VIII*, 499; *IX*, 851.
 blossom weevil, notes, *Rec. V*, 740; *VI*, 65; *VIII*, 611; *XII*, 862.
 blue mold, notes, *Rec. VII*, 874.
 brown rot, notes, *Rec. VII*, 874.
 brown spot, notes, *Rec. IV*, 354, 837; *V*, 308; *IX*, 762; *XI*, 255; *XII*, 258, 570.
 bud moth—
 fringed wing, notes, *Rec. X*, 564; *XI*, 498.
 fringed wing, remedies, *Rec. X*, 565.
 notes, *Rec. IV*, 417.
 butter, manufacture, *Rec. XII*, 556.
 canker—
 European, notes, *Rec. XII*, 61.
 notes, *Rec. IV*, 518; *V*, 1030; *VI*, 647, 831; *X*, 653; *XI*, 260; *XII*, 59, 262, 573.
 treatment, *Rec. XI*, 758.
 chrysomelid, new, *Rec. VI*, 441.
 cigar-case bearer, *Rec. IV*, 437; *VI*, 1008; *VII*, 227, 593, 968.
 core rot, studies, *Rec. IX*, 850.
 crop—
 of Germany, *Rec. VII*, 127.
 Vermont, *Rec. VIII*, 408.
 Virginia, *Rec. XII*, 445.
 outlook, 1892, *Rec. IV*, 500.
 crown gall, notes, *Rec. IX*, 762.
 (See also CROWN GALL.)
 curculio—
 breeding, *Rec. III*, 309.
 notes, *Rec. II*, 332; *III*, 313; *V*, 310; *VIII*, 69; *X*, 165, 273; *XI*, 272.
 oviposition, *Rec. II*, 332.
 parasite, *Rec. II*, 103.
 decay, notes, *Rec. V*, 401.
 disease, studies, *Rec. VIII*, 706.
 diseases, *Rec. II*, 32; *VIII*, 412; *XI*, 949.
 diseases—
 caused by cedar apples, *Rec. VIII*, 801.
 in the Hudson Valley, *Rec. XII*, 154.
 treatment, *Rec. X*, 261, *XII*, 368.
 dry rot—
 notes, *Rec. X*, 860; *XII*, 570.
 studies, *Rec. IX*, 850.
 edema, notes, *Rec. V*, 879.
 failures in western New York, *Rec. IX*, 450.
 fire blight, notes, *Rec. V*, 497, *VII*, 218; *X*, 266.
 flyspeck, notes, *Rec. XI*, 260.
 foliage, effect of—
 arsenites, *Rec. II*, 199, 215, 216.
 Paris green, *Rec. III*, 870.
 fruit borer, remedies, *Rec. X*, 569

Apple—Continued.

- fruit miner, notes, *Rec. IX*, 856; *X*, 866; *XI*, 863.
 insects, *Rec. III*, 54,403; *IV*, 449, *V*, 310; *VII*, 881; *VIII*, 807; *IX*, 772; *XII*, 368, 774.
 insects, repression, *Rec. V*, 438.
 jelly—
 analyses, *Rec. XI*, 882.
 manufacture, *Rec. XII*, 556.
 leaf beetle, notes, *Rec. I*, 11.
 leaf blight, notes, *Rec. XI*, 1048.
 leaf blister moth, remedies, *Rec. XI*, 956.
 leaf crumpler—
 notes, *Rec. XI*, 170, 272.
 remedies, *Rec. IX*, 157, 371; *X*, 68.
 leaf folder—
 lesser, notes, *Rec. XI*, 272.
 lesser, remedies, *Rec. IX*, 157; *X*, 68.
 leaf hopper, notes, *Bul. 2. II*, 119; *Rec. I*, 291.
 leaf miner, *Rec. X*, 571.
 leaf roller, notes, *Rec. VIII*, 146.
 leaf rust—
 notes, *Bul. 2. I*, 26; *Rec. V*, 497; *XI*, 170, 260.
 treatment, *Rec. XI*, 1042.
 leaf sewer, notes, *Rec. VIII*, 906.
 leaf skeletonizer, notes, *Rec. XI*, 170.
 leaf spot—
 notes, *Rec. VII*, 875; *IX*, 57; *X*, 260, 453, 763.
 remedies, *Rec. X*, 1042.
 leaf tier, notes, *Rec. X*, 766.
 maggot—
 in North Carolina, *Rec. VI*, 740.
 notes, *Bul. 2. II*, 58; *Rec. I*, 73; *II*, 496, 651; *III*, 176, 218, 313; *IV*, 204; *V*, 64; *VI*, 316, 915; *VII*, 126; *VIII*, 242, 414, 1003; *IX*, 261, 856, 858; *X*, 165, 866; *XI*, 273; *XII*, 68, 368.
 remedies, *Rec. I*, 74; *II*, 651; *VI*, 915; *XII*, 974.
 mildew—
 in the Tyrol, *Rec. X*, 763.
 notes, *Rec. XI*, 260; *XII*, 463.
 treatment, *Rec. III*, 878.
 monilia, *Rec. XI*, 949.
 moth, notes, *Rec. VIII*, 69; *X*, 470.
 must, fermentation with pure cultures, *Rec. IV*, 517.
 nursery stock as affected by freeze of 1899, *Rec. XI*, 930.
 orchards—
 care, *Rec. VI*, 988; *VIII*, 493.
 cover crops for, *Rec. XII*, 554.
 cultivation, *Rec. VII*, 304; *VIII*, 493.
 management, *Rec. III*, 537; *X*, 431.
 spraying, *Rec. IV*, 561, *V*, 663, 683, 684; *VI*, 437; *VII*, 137, 139, 305; *VIII*, 240, 608; *XII*, 1064.
 treatment, *Rec. VII*, 126.
 wood ashes for, *Rec. X*, 437.
 pectin, sugar from, *Rec. V*, 648.
 peelings and leaves as affected by iron sulphate, *Rec. XI*, 1043.
 pests, treatment, *Rec. VI*, 317, *VII*, 305.
 plum curculio on, *Rec. V*, 937.

Apple—Continued.

pomace—

- analyses, Rec. I, 15; VII, 336; VIII, 331.
- as a food for cattle, Rec. V, 439.
- feeding value, Bul. 2, 1, 191.
- silage, analyses, Rec. II, 666; III, 150.
- silage for cows, Rec. II, 667.
- silage for pigs, Rec. III, 150.
- uses, Rec. XII, 556.

powdery mildew—

- notes, Rec. V, 989; XI, 260.
- treatment, Rec. I, 170; II, 33; IV, 955.

products, analyses, Rec. XII, 556.

ripe rot, notes, Rec. II, 749; III, 846.

root borer, notes, Rec. VIII, 69.

root rot, notes, Rec. XII, 1058.

rot—

- notes, Rec. VI, 314.
- relation to codling moth, Rec. IV, 660.
- treatment, Rec. IV, 659; VIII, 61, 412; IX, 1062.

rust—

- and cedar apples, relation, Rec. IV, 471.
- notes, Rec. III, 217, 479; IV, 354, 837; VII, 875; IX, 455.
- treatment, Rec. I, 168; II, 32; III, 878; X, 1042.

scab—

- fungicides, Rec. II, 32, 633, 650; III, 620, 864; IV, 399; V, 61, 1077.
- notes, Bul. 2, 1, 146; Bul. 2, II, 58; Rec. II, 32, 63, 131, 246, 448, 502, 586, 651; III, 172, 197, 217, 313, 357, 404, 479, 620, 846, 860, 871; IV, 351, 412, 414, 415, 561, 562, 658, 729, 837; V, 60, 61, 194, 497, 629, 683, 878, 1076; VI, 316, 557, 558; VII, 39, 788, 875; VIII, 608, 705, 999; IX, 762; X, 451, 1042, 1057; XI, 170, 255, 260, 556, 561; XII, 262, 463, 767, 953.

prevalence in New York, Rec. II, 246.

sulphid of sodium fer, Rec. II, 660.

- treatment, Bul. 2, I, 146; Bul. 2, II, 58; Rec. I, 163, 169, 170, 294; II, 32, 63, 134, 173, 403, 443, 506, 633, 650; III, 197, 357, 403, 620, 846, 864, 878, 879, 892; IV, 170, 399, 436, 471, 500, 561, 600, 823, 876, 926; V, 61, 203, 877, 1073, 1077; VI, 939; VII, 224, 539, 786, 788, 879; VIII, 60, 133, 140; IX, 147, 457, 764, 931; X, 452, 1042, 1057; XI, 258, 356, 468, 651, 758, 1059; XII, 259, 657, 761, 965.

seedlings—

- Arkansas, Rec. X, 48; XII, 151.
- injury by woolly aphis, Rec. IV, 922.
- study, Rec. V, 1075.
- varieties, Rec. IX, 841.

skin blotch, treatment, Rec. VIII, 133.

soft rot, notes, Rec. XI, 260.

sooty fungus—

- notes, Rec. IX, 762.
- treatment, Rec. IX, 764.

spot, notes, Rec. IV, 471; VIII, 999; XI, 260.

star, notes, Rec. VI, 636.

"stippen," Rec. III, 926.

stocks of, influence on top, Rec. XI, 51.

sucker, notes, Rec. V, 740.

sugar, notes, Rec. VI, 636.

Apple—Continued.

- sun scald, notes, Rec. II, 33; VII, 137, 410; IX, 762, 847; XI, 356.

thorn, notes, Rec. VII, 38.

tree, affected by Longicorn beetle, Rec. XI, 1063.

tree anthracnose, notes, Rec. XII, 58, 61, 262.

tree borer—

- notes, Rec. III, 309; VI, 567; XI, 66.
- remedies, Rec. I, 138; III, 878; V, 402; IX, 560; X, 1042.

tree borer, flat-headed—

- affecting plum trees, Rec. XI, 1064.
- notes, Bul. 2, II, 58; Rec. II, 70; III, 46, 175, 198, 313, 889; VIII, 68; IX, 767; X, 164, 459; XI, 268; XII, 869.
- remedies, Rec. VIII, 907, 999; IX, 371; X, 655.

tree borer, round-headed—

- notes, Bul. 2, II, 58; Rec. I, 45; III, 175, 198, 313, 889; V, 310, 498, 685; VII, 42; VIII, 999; X, 369, 458, 459; XI, 268, 955; XII, 68, 869.
- remedies, Rec. IX, 371; X, 655.

tree borer, spotted, remedies, Rec. X, 655.

tree bucculatrix, notes, Rec. II, 420; III, 313; VI, 740.

tree caterpillar—

- red-humped, notes, Rec. III, 198, 313, 396, 889; IV, 838; VII, 141; VIII, 68.
- yellow-necked, notes, Rec. III, 176, 298, 313; IX, 858.

tree edema, Rec. V, 879.

tree enemy, new, Rec. VI, 563.

tree fire blight, notes, Rec. XI, 758.

tree flea beetle, notes, Bul. 2, II, 33; Rec. I, 120.

tree leaves, analyses, Rec. III, 357, 358; VIII, 54.

tree pruner, remedies, Rec. IX, 371.

tree roots, Rec. X, 721.

tree tent caterpillar—

- natural enemies, Rec. XI, 170.
- notes, Bul. 2, I, 177; Bul. 2, II, 58; Rec. I, 283; II, 115, 654; III, 46, 175, 230, 313; IV, 661; V, 64, 310, 498; VII, 42; IX, 458, 858; X, 871, 1067; XI, 170, 173, 368, 955; XII, 68, 860.
- remedies, Rec. IX, 371.

tree weevil, bronze, notes, Rec. XI, 863; XII, 161.

trees—

- analyses, Rec. IV, 252.
- bud development, Rec. XI, 851.
- bud *v.* piece root grafting, Rec. XI, 848.
- fertilizer experiments, Bul. 2, I, 109.
- hardiness, Rec. I, 43.
- influence of stock on top, Rec. XI, 51.
- injury by Bordeaux mixture, Rec. XII, 1057.
- injury by cold, Rec. XII, 244.
- newly planted, pruning, Rec. V, 925.
- pruning, Rec. IX, 948; X, 45; XII, 54.
- root grafted *v.* double worked, Bul. 2, I, 66.
- root killing, Rec. XI, 848.

Apple—Continued.

trees—continued.

root pruning, Rec. XI, 152, 548, 928, 1047.
 root pruning, Stringfellow method, Rec. X, 637, 1343; XI, 845; XII, 853.
 spraying experiments, Rec. XI, 167.
 spraying for codling moth, Rec. VI, 150.
 tests for maturity, Rec. I, 43.
 whole v. piece root grafting, Rec. XI, 548.
 winter spraying, Rec. VI, 833.
 young, as affected by alfalfa, Rec. XI, 1048.

twig blight, notes, Bul. 2, I, 31; Rec. V, 194; VIII, 318; XI, 230.

twig borer—

eye-spotted, Rec. XI, 366.
 notes, Bul. 2, II, 11, 33; Rec. I, 120; VII, 697; VIII, 611.
 remedies, Rec. IX, 371.

twigs—

and leaves, analyses, Rec. XI, 1042.
 chemical study, Rec. I, 42.

wood—

analyses, Rec. II, 504.
 young, evaporation from, during winter, Rec. XII, 25.

worm. (See CODLING MOTH.)

Apples—

American, in Belgium, Rec. X, 48.
 American Rambo, identity, Rec. V, 1099.
 analyses, Rec. II, 25, 582; III, 928; IV, 59, 308, 518; VIII, 54; IX, 682; X, 754; XI, 51; XII, 554, 946.

analyses of ash, Rec. XI, 157, 229; XII, 858, 1045.

anatomy of fruit, Rec. VIII, 204.

and pumpkins for pigs, Rec. XI, 967.

as food, Rec. VIII, 520.

"belted," Rec. IX, 57.

Ben Davis, Rec. XI, 154.

bletting, Rec. IV, 620.

cedar. (See CEDAR APPLES.)

cold storage, notes, Rec. V, 729; VII, 504.

coloring, Rec. VI, 694.

combined insecticides and fungicides for, Rec. II, 408, 660.

composition at different stages, Rec. V, 728.

cover crops for, Rec. XII, 554.

crab. (See CRAB APPLES.)

cracking, Rec. X, 561.

cross fertilizing, Bul. 2, II, 94; Rec. III, 223; VIII, 435; IX, 1053; XI, 417.

cultivation as affecting growth, Rec. XII, 553.

culture, Rec. VI, 220; VII, 771; IX, 245; X, 151, 354, 639, 1041, 1042; XII, 245, 554.

culture—

espalier, Rec. VII, 867.
 experiments, Rec. IV, 253, 346; XII, 749, 1041.

in Canada, Rec. VIII, 887.

France, Rec. XII, 245.

Michigan, Rec. VII, 333; VIII, 889.

New Jersey, Rec. IX, 47.

North Carolina, Rec. XII, 245.

Ontario, Rec. VI, 424.

Oregon, Rec. VIII, 52.

pots, Rec. XII, 853.

Apples—Continued.

culture—continued.

in Vermont, Rec. VIII, 791.

West Virginia, Rec. XII, 1044.

Wisconsin, Rec. VIII, 49.

dwarf, Rec. VIII, 226.

dwarf and ornamental, notes, Rec. XII, 945.

early v. late picking, Rec. I, 286.

effect—

of climate on quality, Rec. VI, 297.

removing strips of bark from trees, Rec. XII, 450.

unusual cold, Rec. XI, 1041.

evaporated, Rec. VII, 127; VIII, 132.

evaporated—

analyses, Rec. II, 504.

zinc in, Rec. II, 504; VI, 297, 992; VIII, 132.

evaporating, Rec. VIII, 227; IX, 840; XI, 851; XII, 558.

Fameuse, Rec. X, 639.

fertilizer—

experiments, Rec. XII, 344.

requirements, Rec. XI, 45.

fertilizing ingredients removed from soil by, Rec. II, 25, 272.

flower development, Rec. XII, 22.

for wine making, Rec. III, 928; VI, 110.

forcing under glass, Rec. XII, 853.

frost injuries, Rec. VIII, 139.

fruit development as affected by seed development, Rec. XI, 936.

fruitfulness as affected by rainfall, Rec. III, 297.

Gano, history, Rec. X, 757.

germination as affected by size of fruits and number of seeds, Rec. XII, 758.

grafting, Rec. VI, 992; IX, 750; X, 151, 397; XI, 548.

grafting—

on honey locusts, Rec. XI, 850.

peaches, Rec. XI, 850.

Siberian crabs, Rec. XI, 850.

growing in high latitudes, Rec. XII, 548.

growth and ripening, Rec. V, 729.

growths found in seed cavities, Rec. VI, 694.

hardy, stocks for, Rec. XI, 848.

hybrids, Rec. XII, 1045.

improvements of varieties, Bul. 2, II, 94.

injury by birds, Rec. VI, 300.

in the United Kingdom, Rec. XII, 1098.

iron content, Rec. XI, 157.

irrigation, Rec. XII, 449.

keeping qualities, Rec. I, 102; IX, 840; X, 437; XII, 798.

kerosene with ammoniacal copper carbonate for, Rec. IV, 42.

mature decays, Rec. VI, 825.

notes, Rec. X, 547; XI, 1047; XII, 945.

of Tennessee, origin, Rec. VIII, 496, 984.

packing and shipping, Rec. VII, 404.

preparation of soil, Rec. XII, 553.

production in Virginia, Rec. XII, 445.

propagation, Rec. XII, 558.

Red Astrachan, immunity to *Gymnosporangium macropus*, Rec. X, 865.

retarding blossoming period, Rec. XII, 348.

Apples—Continued.

ripening—

after picking, Rec. IV, 518.

formation of saccharose during, Rec. V, 728.

Rochelle, origin, Rec. VIII, 408.

Russet, varieties of Maine, Rec. IX, 650.

Russian—

nomenclature, Rec. X, 960.

varieties, Bul. 2, II, 75, 87, 91; Rec. I, 84; VI, 637, 989; VIII, 791; IX, 650, 834; XI, 647; XII, 54.

shipments from Canada, Rec. XII, 559.

sprayed—

arsenic in, Rec. IV, 437.

with arsenites, analyses, Bul. 2, I, 33.

spraying, Rec. VIII, 240; XI, 258.

storing, Rec. X, 849.

storing—

for expositions, Rec. XII, 345.

with *v.* without wrapping, Rec. XI, 849.

without ice, Rec. XII, 798.

thinning, Rec. IX, 448.

top grafting, Rec. VI, 299; XII, 449, 548.

top working, Rec. XII, 852, 1044.

utilization of unmerchantable, Rec. VIII, 977; X, 197.

varieties, Bul. 2, I, 21, 23, 66, 183, 190; Bul. 2, II, 91, 135; Rec. I, 84, 229; II, 5, 25, 295, 356, 372, 392, 395, 411, 426, 556, 599, 642, 653, 668, 669; III, 85, 246, 282, 356, 360, 361, 386, 403, 588, 701, 722, 723; IV, 166, 412, 436, 556, 651, 652, 653, 727, 728, 828; V, 53, 190, 299, 501, 584, 586, 587, 870, 871, 877, 985; VI, 52, 54, 55, 142, 423, 424, 725, 820, 988; VII, 34, 215, 304; VIII, 49, 52, 133, 134, 407, 494, 496, 600, 791, 889; IX, 49, 50, 51, 244, 353, 559, 834, 840; X, 49, 254, 437; XI, 152, 153, 157, 251, 252, 544, 547, 844, 850, 929, 937, 1036, 1048; XII, 54, 237, 245, 648, 853, 1044.

varieties—

adapted to Arkansas, Rec. V, 1075.

for cider, Rec. VIII, 408; XII, 54.

hardy, Rec. XII, 630.

self-sterile, Rec. XII, 237.

subject to bacterial diseases, Rec. V, 1019.

Wealthy, notes, Rec. XI, 154.

winter, keeping qualities, Rec. XI, 849.

Yellow Newton, history, Rec. X, 639.

yield in 1892, Rec. IV, 411.

York Imperial, history, Rec. X, 639.

Apricot—

die-back disease, notes, Rec. XII, 965.

diseases, Rec. IV, 985; V, 422.

plum, notes, Rec. IV, 916.

scale, brown, notes, Rec. IV, 203.

stone oil as an adulterant of olive oil, Rec. IV, 986.

trees, abnormal growths, Rec. XI, 556.

Apricots—

analyses, Rec. III, 591; IV, 157, 918; VI, 820; X, 754.

as cordons, Rec. VII, 771.

bud development, Rec. XI, 851.

canned, sugar content, Rec. XII, 980.

culture, Rec. VII, 771, 868.

Apricots—Continued.

culture—

experiments, Rec. IV, 253.

in California, Rec. VI, 220, 728.

in New York, Rec. VI, 420; VIII, 313.

curing, Rec. XII, 151.

fertilizing constituents, Rec. IV, 158, 161, 919, 921.

fruit development as affected by seed development, Rec. XI, 936.

irrigation, Rec. VIII, 408.

irrigation in winter, Rec. XI, 847; XII, 1042.

Japanese, varieties, Rec. VI, 899.

notes, Rec. IX, 353; X, 49, 547; XII, 945.

nutritive value, Rec. IV, 160.

pruning, Rec. VII, 504; XII, 245.

root knots on, Rec. IV, 563.

Russian, varieties, Rec. VI, 899.

self-sterile variety, Rec. XII, 237.

shot-hole fungus, Rec. VII, 788.

stocks, Rec. II, 218.

Teras contaminana on, Rec. VII, 517.

varieties, Bul. 2, I, 183; Bul. 2, II, 135; Rec. I, 84; II, 25, 218, 295, 426, 599, 642; III, 282, 356, 361; IV, 166, 653, 918; V, 190, 586, 587, 681, 870; VI, 52, 55, 220, 421, 424, 728, 820, 899, 901; VII, 214; VIII, 129, 133, 134, 889; IX, 50, 51, 244; X, 254; XI, 251, 929, 1036; XII, 648, 853.

Apterygogenea, North American, Rec. IX, 468.

Aptinothrips rufa, notes, Rec. XII, 970.

Aquatic—

fungi, new, Rec. VII, 371.

hemiptera, stridulant, Rec. V, 821.

insects, natural history, Rec. VII, 231.

leaf beetle, notes, Rec. I, 292.

plants—

as affected by electricity, Rec. VIII, 380, 747.

buoyancy of seed, Rec. VII, 218.

ornamental, Rec. IX, 141.

Aquatics, culture, Rec. XII, 152.

Aqueous vapor—

in the atmosphere, Rec. VIII, 30.

measurement, Rec. IX, 1034.

Aquilegia—*pubescens*, notes, Rec. VI, 114.*vulgaris*, notes, Rec. IV, 653.

Aquilegias in North America, Rec. XI, 709.

Araban in diastase preparations, Rec. IX, 620, 723.

Arabic acid from sugar beets, Rec. XI, 706.

Arabinose—

and galactose, separation, Rec. VIII, 198.

as affected by—

hydrochloric and phosphoric acids Rec. VIII, 377.

nitric acid, Rec. VII, 271, 557.

fermentation with *Bacillus ethaceticus*, Rec. IV, 315.

studies, Rec. IX, 25, 115.

Arachidic acid, notes, Rec. XI, 23.

Arachis hypogaea. (See PEANUT.)

Arachnida, origin of parasitism, Rec. III, 547.

Arachnids—

as carriers of disease, Rec. XI, 995.

new species, Rec. XI, 265.

- Arrocercus fasciculatus*—
affecting coffee, Rec. XI, 1065.
notes, Rec. IX, 66, 370, 854.
- Aragallus lambertii*, notes, Rec. X, 516
(See also OXYTROPUS.)
- Aralia*—
cordata, notes, Rec. VII, 687.
mandshurica, notes, Rec. IV, 655.
quinquefolia, notes, Rec. III, 134.
spinosa, gummosis, Rec. VIII, 706.
Aramigus fulleri, notes, Rec. II, 5; X, 168.
Araucaria cunninghamii, notes, Rec. VII, 776.
Araucaria forests of Chile and Argentina, Rec. IX, 562.
- Arbor day—
effects of forest planting, Rec. IX, 953.
in France, Rec. IV, 876.
New Zealand, Rec. V, 263.
- Arbor vitæ—
Chinese, Rec. V, 54.
notes, Rec. II, 143; IV, 655; V, 54; VI, 993;
VII, 134.
Siberian, notes, Rec. II, 143; V, 54.
Tom Thumb, notes, Rec. V, 54.
- Arboreal flora of Java, Rec. VII, 278; VIII, 291.
- Arborescent flora of the United States, nomenclature, Rec. IX, 452.
- Arboricultural and pomological conference at Paris Exposition, Rec. X, 900.
- Arboriculture, practical, Rec. X, 853.
- Arbutus unedo*, notes, Rec. III, 597.
- Archegoniates, organography, Rec. X, 23.
- Archippus butterfly—
natural enemies, Rec. IV, 852.
swarming, Rec. IV, 669.
- Arctagrostis latifolia*, notes, Rec. IV, 951.
- Arctia*—
phalerata, life history, Rec. XII, 870.
phyllira—
notes, Rec. IX, 370.
on cotton, Rec. IV, 667.
- Arctic—
and Alpine plants, comparative structure, Rec. VI, 616.
grass. (See RESCUE GRASS.)
North America, butterflies common to, Rec. V, 1037.
plants—
anatomy of leaves, Rec. VI, 873.
culture, Rec. VIII, 986.
regions, photochemical climate, Rec. XI, 128.
- Arctium lappa*. (See also BURDOCK.)
analyses, Rec. III, 629, 893.
notes, Rec. III, 308; IV, 47; V, 398; VI, 145, 207; VII, 38.
root system, Rec. IV, 45.
- Arctomicon merriami*, notes, Rec. VI, 114.
- Arctostaphylos uva-ursi*, notes, Rec. III, 522.
- Arcturiæ in U. S. National Museum, Rec. IX, 1031.
- Ardeæ novæ hollandiæ*, notes, Rec. X, 93.
- Areca affected by spotted locusts, Rec. XI, 477.
- Areca catechu*, notes, Rec. VIII, 231.
- Arenaria compacta*, notes, Rec. VI, 114.
- Areometer for determination of sugar in urine, Rec. IV, 221.
- Argas*—
americanus, notes, Rec. XI, 291; XII, 973.
persicus—
effect of bite, Rec. XII, 68.
notes, Rec. XII, 861.
bibliography, Rec. XII, 867.
- Argemone mexicana*, notes, Rec. VI, 224; VII, 407.
- Argentine Republic, sheep breeding in, Rec. V, 1033.
- Argentum Credé as a diagnostic in glanders, Rec. XI, 1092.
- Arginin—
in roots and tubers of plants, Rec. VIII, 29, 466.
protein compounds, Rec. XI, 511.
studies, Rec. XII, 310.
- Argiope cophinaria*, notes, Rec. XII, 580.
- Argon—
a new constituent of the atmosphere, Rec. VI, 691.
and helium, Rec. VII, 90.
nitrogen in the blood, Rec. VIII, 719.
as a thermometrical substance, Rec. VII, 95.
assimilation by plants, Rec. VI, 787.
combination with water, Rec. VIII, 105.
determination, Rec. VII, 364.
effect on plant growth, Rec. IX, 725.
in atmospheric and respired air, Rec. VII, 17, 570, 661.
vegetable and animal substances, Rec. VII, 19.
nitrogen, and plants, Rec. VII, 19.
spectrum, Rec. VI, 955.
synthesis and analysis, Rec. VII, 185.
- Argyresthia*—
conjungella, notes, Rec. X, 866, 974, 1076; XI, 765, 863; XII, 973.
cupressella, notes, Rec. II, 303.
freyella, notes, Rec. II, 303.
nitidella, notes, Rec. VIII, 418.
plicipunctella, notes, Rec. II, 303.
spp., notes, Rec. XII, 69.
- Argyresthia, notes, Rec. XI, 66.
- Arid—
and humid regions, nitrogen content of soil humus, Rec. VI, 794.
lands—
cession for irrigation, Rec. XI, 195.
legislation for reclamation, Rec. XI, 195.
reclamation, Rec. VI, 345; VIII, 966.
regions—
analysis of fruits, Rec. VI, 729.
obstacles to settlement, Rec. XI, 195.
of the United States, irrigation in, Rec. XII, 397.
pecan culture in, Rec. VI, 729.
reservoirs, Rec. XI, 294.
vernal phenomena, Rec. XI, 421.
soils—
analysis, Rec. VI, 729.
physical and chemical peculiarities, Rec. XI, 717.
(See also SOILS, ARID and ALKALI.)
- Aridity, studies, Rec. VIII, 482.
- Arion ater*, notes, Rec. IX, 74.

Aristida—

- arizonica*, notes, Rec. II, 259; III, 280.
- basiramea*, notes, Rec. II, 321.
- californica*, notes, Rec. IV, 498.
- divaricata*, notes, Rec. II, 259.
- fasciculata*, notes, Rec. X, 147, 343.
- oligantha*, notes, Rec. X, 223.
- purpurea*, notes, Rec. II, 491; III, 280, 548; VI, 403.

stirpoides as a forage plant, Rec. VIII, 596.

Aristol as an antiseptic, Rec. IV, 360.

Aristolochia siphon, notes, Rec. IV, 656.

Arithmetical mean, law, Rec. VI, 114.

Arma sibellanbergia, notes, Rec. IX, 262.

Armillaria—

melica as a cause of root rot of the peach.
Rec. VI, 557.

tumescens, notes, Rec. XI, 121.

Army—

ration—

- emergency, Rec. X, 376.
- in the Tropics, Rec. XI, 882; XII, 470.

worm—

- affecting jowari, Rec. XI, 1062.
- black, notes, Rec. IV, 839; X, 165; XI, 862.
- erratic, notes, Rec. X, 766.
- fall, notes, Rec. II, 80; XII, 364, 365, 468, 861.
- fall, remedies, Rec. IX, 772.
- food plants, Rec. IX, 1064.
- in Massachusetts, Rec. IX, 470.
- New York, Rec. IX, 365.
- 1894, Rec. VI, 441, 740.
- injuries from, Bul. 2, II, 91.
- natural enemies, Rec. IX, 858, 964, 1064.
- new diseases, Rec. X, 1065.
- notes, Bul. 2, II, 94; Rec. I, 120, 317; II, 80, 81, 258, 333, 720; III, 309, 318, 792; V, 101, 984; VI, 312, 313, 315; VII, 141, 312, 581, 593, 967; VIII, 67, 416, 507, 608, 609, 998, 1003; IX, 67, 150, 365, 458, 470, 574, 662, 663, 775, 855, 858, 1064, 1072; X, 164, 167, 270, 457, 459, 766, 1068; XI, 62, 870, 955; XII, 270.
- parasites, Bul. 2, II, 94; Rec. VII, 312; IX, 150, 663; X, 661.
- remedies, Rec. VII, 67, 609; IX, 574, 964, 1064; XI, 63; XII, 865.
- repression, Rec. V, 984.
- wheat-head notes, Rec. V, 980.

Aroidæ, notes, Rec. X, 640.

Aroma in rum, production, Rec. VII, 809.

Aromatic—

- bacillus of cheese, Rec. V, 233.
- principles, development by alcoholic fermentation, Rec. XI, 125; XII, 115.

Arctophora ombrodelta, notes, Rec. IX, 768.

Arrack, production, Rec. VII, 279.

Arrhenatherum—*avenaceum*—

- analyses, Rec. IV, 646; XII, 471.
- culture experiments, Rec. III, 860; IV, 38.
- notes, Bul. 2, II, 84; Rec. I, 183, 320; II, 69, 238, 271, 329, 594, 601, 622; III, 28, 29, 595; VI, 721.

elatus— (See also MEADOW OAT GRASS, TALL.)

- notes, Rec. VI, 97; X, 244, 245; XII, 436.
- smut, Rec. V, 821.

Arrhenophagus chionaspidis, notes, Rec. IX, 663.

Arrowroot—

- analyses, Rec. X, 678.
- cultivation and manufacture, Rec. VII, 131.
- culture, Rec. XI, 442.
- culture experiments, Rec. IX, 243.
- notes, Rec. XI, 240.
- parasitic disease, Rec. VI, 311.
- St. Vincent, notes, Rec. V, 348.

Arrowwood, notes, Rec. IV, 656.

Arsenate—

of lead—

- a substitute of Paris green, Rec. X, 458.
- and Bordeaux mixture, injurious effect, Rec. IX, 363.
- Paris green for tortoise beetles, Rec. XI, 62.
- as an insecticide, Rec. VIII, 912; IX, 75; X, 470; XI, 66.
- danger from use, Rec. X, 567.
- improvement in manufacture, Rec. XI, 954.
- manufacture and composition, Rec. X, 567.
- preparation and use, Rec. X, 63; XI, 174.
- of soda and acetate of lead for elm leaf beetle, Rec. VII, 595.

Arsenic—

acid—

- as a substitute for phosphoric acid in plant nutrition, Rec. IX, 1028.
- precipitation by molybdate of ammonia, Rec. IV, 313.

determination, Rec. IV, 221, 612; VII, 652.

determination—

- in London purple, Rec. XII, 821.
- Paris green, Rec. XI, 313, 614.

detection and estimation, Rec. IV, 612.

effect on—

- germination of seeds, Rec. VIII, 232.
- plants, Rec. XI, 1016.
- vegetable organisms, Rec. X, 321.

for locusts, Rec. IX, 863; XI, 366.

wheat smut, Rec. II, 221.

in sprayed—

- apples, Rec. IV, 437.
- tobacco, Rec. VI, 272, 315.
- superphosphates, Rec. III, 655; XI, 331; XII, 1025.

influence on plants, Rec. V, 1011.

test for, Rec. XI, 652.

white—

- as an insecticide, Bul. 2, I, 71; Rec. II, 747; IV, 417; V, 63; X, 169.
- effect on foliage, Rec. II, 199, 215; III, 174, 283.
- solubility, Rec. III, 174.

with lime as a fungicide, Rec. II, 221.

Arsenical—

insecticides—

- adulteration, Rec. XII, 820.
- analyses, Rec. XII, 1066.
- methods of analysis, Rec. XII, 820.
- value of glucose in, Rec. XI, 560.
- poisoning as affected by leucocytes, Rec. XI, 91.
- poisons as insecticides, Rec. XI, 66.

Arsenical—Continued.

salts as insecticides, Rec. XII, 168.

washes, preparation and use, Rec. VII, 593.

Arsenicals for destroying weeds, Rec. XII, 249.

Arsenite—

green, analyses, Rec. XII, 273.

of ammonia—

as an insecticide, Rec. III, 54.

for potato beetle, Rec. II, 637.

soda for spraying, Rec. IX, 75.

Arsenites— (See also LONDON PURPLE and PARIS GREEN.)

and lime for sweet potatoes, Rec. V, 403.

as insecticides, Rec. V, 516.

best time to apply, Rec. II, 216.

effect of—

adding paste, Rec. II, 216.

adding soap, Rec. II, 216.

effect on—

bees, Rec. IV, 667; VI, 651.

foliage, Rec. II, 198, 215, 244, 495; III, 96, 173, 283, 525, 812.

preparation and use, Rec. II, 215, 416; IV, 173, 840.

with iron, Rec. III, 175.

iron sulphate, Rec. III, 175.

lime, Rec. IV, 84.

Art v. science, Rec. IX, 317.

Arteca punctistriga, notes, Rec. IX, 1065.

Artemisia—

abrotanum—

as nurse plants for conifers, Rec. XII, 248.
notes, Rec. VI, 427.*abrotanum tobolskianum*, notes, Rec. VII, 135.*biennis*, notes, Rec. IV, 699; VIII, 703.*cana*, notes, Rec. III, 522.*filifolia*, notes, Rec. III, 522.*ludoviciana*, notes, Rec. X, 343.*maritima*, notes, Rec. V, 128.*mexicana*, notes, Rec. X, 343.*pedatifida*, notes, Rec. III, 52.*tridentata*, notes, Rec. III, 522.

Artesian—

and underflow investigations in the United States, Rec. III, 328.

basins of Wyoming, Rec. XII, 1019.

irrigation in Australia, Rec. XI, 1094.

water—

analyses, Bul. 2, I, 33; Rec. I, 221; IV, 120, 244; VII, 288.

for irrigation, Rec. XII, 835.

in Nevada, Rec. III, 328.

Queensland, Rec. VII, 290.

South Dakota, Rec. VII, 287; VIII, 298, 351.

metals in, Rec. IX, 323.

well waters, analyses, Rec. IX, 738.

wells, Rec. XII, 426.

wells—

for irrigation purposes, Rec. III, 373, 890.

in Colorado, Rec. III, 373.

New South Wales, Rec. XI, 395.

southern Wyoming, Rec. VI, 848.

Arthrenus, intestinal canal, Rec. IX, 1070.

Arthritis—

chronic, of the stifle joint, Rec. XI, 191.

in lambs, Rec. VIII, 159.

Arthrolytus apatela, notes, Rec. V, 311, 312.

Arthropods, catalogue, Rec. VI, 1008.

Artichoke as a medium for bacteria, Rec. X, 322.
(See also *Helianthus tuberosus*.)

Artichokes—

analyses, Rec. IV, 175; V, 66; VIII, 520.

assimilation of carbonic acid by, Rec. IV, 613.

canned, analyses, Rec. V, 220.

composition and growth of tubers, Rec. VII, 188.

culture, Rec. IX, 357; XI, 1047.

feeding value, Rec. XII, 284.

fertilizer formula, Rec. XII, 851.

for pigs, Rec. X, 675; XII, 176, 876.

globe, culture, Rec. XI, 1047.

Jerusalem. (See JERUSALEM ARTICHOKE.)

morphology and anatomy, Rec. VIII, 566.

notes, Rec. VI, 296; X, 343.

propagation, Rec. V, 1099.

varieties, Rec. VIII, 889.

Artocarpus—

incisa—

analyses, Rec. XII, 1076.

notes, Rec. VI, 636.

integrifolia, analyses, Rec. X, 678.*tecta*, notes, Rec. VI, 93.*Artotrogus debaryanus*, notes, Rec. XI, 757.

Arts and manufactures, utilization of micro-organisms, Rec. X, 520.

Arums, species, Rec. IX, 756.

Arundinaria macrosperma, analyses, Rec. V, 64, 65.*Arundo donax*—

fungus disease, Rec. X, 364.

notes, Rec. II, 607; IV, 653; XI, 423.

Arvicola—

macropus, n. sp., notes, Rec. III, 184.*mordax*, n. sp., notes, Rec. III, 184.*nanus*, n. sp., notes, Rec. III, 184.

sp., notes, Rec. III, 184.

Arzama obliquata, notes, Rec. I, 292.

Asaphes—

bilobatus, notes, Rec. III, 450.*brericollis*, notes, Rec. III, 450.*decoloratus*, Rec. III, 450; VIII, 143.

Asaprol, as a reagent for albumen, pepsin, etc., Rec. VI, 966.

Asbestos—

air-bath, Rec. VII, 463.

filters, Rec. XII, 419.

for filtration of juices and sirups, Rec. V, 349.

packing fruits, Rec. XI, 549.

retention of moisture, Rec. XI, 906.

Ascaris—

lumbricoides, notes, Rec. II, 79; IX, 274.*megaloccephala*—

as a cause of death, Rec. IX, 95.

fecundation, Rec. IX, 1092.

sp., notes, Rec. IX, 1092.

toxonomic description of species, Rec. IX, 1092.

Aschersonia—

aleyrodias, notes, Rec. IX, 659.*tahitensis* in *Aleyrodes citri*, Rec. VI, 556.

Asci, nuclear and cell division, Rec. VIII, 957.

Asclepiadaceæ, notes, Rec. V, 965.

Asclepias—

cornuti—

 division of pollen cells, Rec. X, 121.

 notes, Rec. VI, 207.

curassavica—

 for repelling fleas, Rec. XI, 263.

 poisonous to stock, Rec. XI, 1057.

eriocarpa, notes, Rec. III, 598.

fascicularis, notes, Rec. III, 598.

fremonti, notes, Rec. III, 598.

incarnata, notes, Rec. IV, 653; VI, 207.

syriaca—

 analyses, Rec. III, 629.

 notes, Rec. III, 308.

 root system, Rec. IV, 46.

tuberosa—

 analyses, Rec. III, 629.

 notes, Rec. IV, 653.

Ascochyta—

corticola, n. sp., notes, Rec. XII, 655.

fragariæ, notes, Rec. I, 282; VI, 828.

graminicola—

 notes, Rec. VI, 909.

 on young rye, Rec. X, 155.

juglandis, notes, Rec. X, 970.

pisi—

 notes, Rec. IX, 656; X, 958; XII, 218.

 on peas, Rec. VII, 44, 311.

polemonii, n. sp., description, Rec. XII, 767.

 sp., notes, Rec. XII, 566.

violæ, notes, Rec. IV, 54; X, 447.

Ascomycetes, sexual production, Rec. IX, 328.

Ascophyllum (Fucus) nodosum, notes, Rec. IV, 715.

Ascus—

 formation on yeast, Rec. VII, 95.

 nuclear division and spore formation, Rec. VII, 748.

Aseptics, use in food materials, Rec. IX, 873.

Aseptolin for tuberculosis, Rec. IX, 592.

Ash—

 analysis—

 apparatus for incinerating, Rec. XI, 304, 506, 511.

 changes in official methods, Rec. IV, 118; VI, 182, 757; X, 509; XII, 507.

 methods, Rec. III, 246; XII, 507.

 methods for feeding stuffs, Rec. V, 458.

 methods for molasses, Rec. XI, 108.

 methods for peat, Rec. XII, 907.

 methods for sugars, Rec. IV, 388.

 new method, Rec. XII, 308.

 of animals, determination of iron in, Rec. V, 522.

 plants, preparation for, Rec. XI, 506.

 bark beetle, remedies, Rec. XI, 477.

 borer, notes, Rec. II, 664; XII, 265.

 cost of planting, Rec. XI, 854.

 culture, Rec. XI, 942.

 European, notes, Rec. IV, 655.

 gray pinion, Bul. 2, II, 58; Rec. IX, 858; X, 164.

Ash—Continued.

 green—

 as wind-breaks, Rec. XI, 550.

 cost of planting and cultivating, Rec. XI, 853; XII, 559.

 notes, Rec. I, 315; II, 512, 741; III, 522; IV, 654; VI, 993; VIII, 604; XII, 559.

 in beech, Rec. V, 256.

 beech forests, Rec. XII, 653.

 in corn—

 at different cuttings, Rec. V, 977.

 plant, Rec. V, 488.

 in cowpea, Rec. V, 489.

 cultivated plants as affected by fertilizers, Rec. IX, 45.

 East India rape seed, Rec. V, 1022.

 etiolated leaves, Rec. IV, 206.

 feces, Rec. V, 732; XI, 1004.

 figs, Rec. V, 301.

 fruit trees, Rec. IV, 252.

Gidgea acacia, Rec. IX, 844.

 glucose sirups and grape sugar, Rec. VII, 91.

 heart and sap wood of leafy trees, Rec. V, 437.

 liquor from sugar manufacture, Rec. X, 118.

 milk, Bul. 2, II, 107; Rec. II, 593.

 milk of different breeds, Rec. V, 945.

 native woods, Rec. I, 26.

 olive-oil refuse, Rec. V, 728.

 orange trees, Rec. VII, 500.

 plants—

 as affected by manuring, Rec. IX, 45, 134.

 iron content, Rec. IX, 45.

 source and function, Rec. V, 1027.

 seed of kidney vetch, timothy, and white clover, Rec. V, 438.

 sugar, Rec. VII, 257.

 the blood as affected by food, Rec. III, 750.

 wheat, composition, Rec. IX, 377.

 (See also specific crops.)

mountain—

 American, notes, Rec. III, 788; IV, 655.

 as host of Gymnosporangium, Rec. II, 712.

 notes, Rec. IV, 654, 655; VII, 134; VIII, 604.

 rust, Rec. V, 450.

 weeping, notes, Rec. IV, 655.

prickly, notes, Rec. IV, 656.

red, notes, Rec. III, 522.

sawfly, notes, Bul. 2, II, 33; Rec. II, 116, 664; V, 206; VI, 316.

timber, production, Rec. XII, 454.

tree borer, notes, Rec. VIII, 146.

tree canker, notes, Rec. V, 348.

tree sphinx, notes, Rec. V, 101, 206.

trees—

 classification and cultivation, Rec. V, 1099.

 notes, Rec. II, 512, 663, 741; VII, 134.

 weeping, notes, Rec. IV, 655.

white—

 as wind-breaks, Rec. XI, 550.

 notes, Rec. IV, 654; VIII, 604; XII, 245.

 rate of growth, Rec. IV, 45.

witches' broom, Rec. XII, 658.

Ashes—

analyses, **Bul. 2, I, 190; Bul. 2, II, 43, 107; Rec. I, 80, 191, 198, 282; II, 5, 154, 232, 278, 282, 481, 504, 581, 582, 654, 666; III, 8, 161, 299, 315, 353, 471, 530, 601, 623, 764, 864; IV, 26, 27, 337, 465, 902, 903; V, 164, 290, 291, 487, 562, 571, 572, 775, 777, 861; VI, 110, 134, 202, 287, 401, 402, 522, 706, 797, 882, 980; VII, 109, 110, 111, 195, 196, 294, 380, 669, 670, 757, 835, 854, 940; VIII, 41, 117, 300, 389, 392, 561, 563, 582, 584, 767, 966, 970; IX, 36, 336, 339, 435, 436, 538, 336, 825, 919, 925, 935, 939; X, 230, 232, 426, 428, 623, 716, 1031, 1033; XI, 137, 314, 527, 528, 719, 831, 1026; XII, 130, 225, 226, 530, 531, 626, 840, 931, 933.**

as a fertilizer, **Rec. II, 550; IV, 248; VI, 400; IX, 899.**

cotton hull—

analyses, **Rec. IV, 26, 336, 337, 902.**
for tobacco, **Rec. IV, 908, 909.**
valuation, **Rec. IV, 337.**

for apple orchards, **Rec. X, 437.**

apple scab, **Rec. X, 452.**

celery, **Rec. IX, 350.**

cherry slug, **Rec. IV, 416.**

lawns, **Rec. XI, 1047.**

meadows, **Rec. IV, 250; V, 779; VII, 290.**

pigs, **Rec. II, 301, 427, 438.**

potatoes, **Rec. II, 60.**

tobacco, **Rec. IV, 614; V, 865.**

from brass works, analyses, **Rec. III, 764.**

coke furnaces, analyses, **Rec. III, 6.**

different woods, quality, **Bul. 2, II, 43.**

soft coal, analyses, **Rec. III, 162.**

inspection, **Rec. IV, 337.**

leached, analyses, **Rec. VIII, 485.**

limekiln, analyses, **Rec. IV, 465.**

logwood, analyses, **Rec. IV, 903.**

substitutes, **Rec. III, 601, 764.**

swill, analyses, **Rec. IV, 903; VI, 287, 522; VII, 291.**

use, **Rec. III, 294.**

variability in composition, **Rec. IX, 36.**

Ashy-gray ladybird, notes, **Rec. VI, 741.**

Asilidae, notes, **Bul. 2, II, 93.**

Asimina triloba, notes, **Rec. III, 521; VII, 505.**

(See also PAPA W.)

Asio—

accipitrinus, notes, **Rec. VII, 471; XI, 428.**

wilsonianus, notes, **Rec. XI, 428.**

Asopia costalis, notes, **Bul. 2, II, 118; Rec. III, 97, 414, 784; V, 989; VI, 65.**

(See also CLOVER HAY WORM.)

Asparagin—

accumulation in legumes grown with insufficient light, **Rec. XII, 420.**

and glutamin, formation by germinating plants, **Rec. IX, 526.**

as a plant food, **Rec. VII, 655; IX, 524.**

behavior in the body, **Rec. V, 732.**

effect on—

albumineid exchange of Carnivora, **Rec. IV, 316.**

metabolism in sheep, **Rec. XII, 874.**

formation—

and assimilation, **Rec. VIII, 27.**

in plants, **Rec. IX, 227, 523; X, 726.**

Asparagin—Continued.

in clover, **Rec. III, 65.**

roots of *Nelumbo nucifera*, **Rec. VII, 468.**

new reaction, **Rec. VIII, 26.**

new reagent for, **Rec. VIII, 562.**

nutritive value, **Rec. IV, 316, 773, 783; XI, 275.**

nutritive value for Herbivora, **Rec. V, 438, 532; IX, 1079.**

v. ammonium salts in digestion, **Rec. II, 531.**

Asparagineæ—

assimilatory organs, **Rec. IX, 624.**

development, **Rec. IX, 329.**

Asparagus—

analyses, **Rec. II, 329, 582; IV, 59; XI, 1026.**

beetle—

in New Hampshire, **Rec. IV, 284.**

kerosene emulsion for, **Rec. III, 298.**

notes, **Rec. I, 22; III, 298; V, 402, 685; VI, 150, 655, 833; VII, 697, 881; VIII, 613, 908, 999; IX, 964; X, 62, 766, 1059; XI, 66; XII, 166, 263, 265, 367, 575, 862.**

parasites, **Rec. IX, 569.**

remedies, **Rec. III, 298; VIII, 612; IX, 569, 574; XI, 762.**

twelve-spotted, notes, **Rec. IV, 284; X, 268, 570.**

twelve-spotted, remedies, **Rec. XI, 762.**

canned—

analyses, **Rec. V, 220.**

notes, **Rec. XII, 980.**

cultivated species, **Rec. X, 47.**

culture, **Rec. V, 1085; VI, 902; VII, 503, 770; VIII, 54, 600, 790; IX, 357, 749, 840, 950, 1053; X, 439; XI, 153, 351, 547, 937; XII, 54, 952, 1043.**

culture—

experiments, **Rec. VIII, 407; IX, 244; X, 148; XI, 735; XII, 51.**

handbook, **Rec. IX, 649.**

in the South, **Rec. XI, 1047.**

ornamental, **Rec. IX, 756.**

fertilizer experiments, **Rec. VI, 811; VII, 687; XI, 140, 735, 1039; XII, 51.**

fertilizers for, **Rec. XI, 351; XII, 236, 851.**

fly—

notes, **Rec. VII, 881; XII, 774.**

remedies, **Rec. VIII, 711.**

forcing, **Rec. VII, 687, 770; VIII, 984; X, 354; XI, 450; XII, 952.**

forcing in the field, **Rec. X, 548, 698.**

insects affecting, **Rec. X, 570.**

irrigation, **Rec. XI, 735, 1039.**

leopard spot, **Rec. IX, 958.**

manuring, **Rec. VI, 142; IX, 245.**

notes, **Rec. IX, 353; X, 49, 547, 962; XI, 1047.**

pests, **Rec. IX, 160.**

planting at different depths, **Rec. X, 350.**

proteids, **Rec. IV, 782.**

rubber bands for bunching, **Rec. II, 604.**

rust—

fungus enemies, **Rec. X, 650.**

notes, **Rec. VIII, 62, 318; IX, 149, 324, 361, 657, 957, 958; X, 260, 455, 865, 968; XI, 159, 160, 314, 356, 753; XII, 61, 257, 261, 962.**

parasites, **Rec. IX, 568; XII, 358.**

treatment, **Rec. IX, 324, 361, 568, 657, 957, 958; X, 449, 648, 650, 864; XII, 354.**

Asparagus—Continued.

- salt for, Rec. VII, 584; X, 350.
 - seed-bearing *v.* nonseed-bearing, Rec. II, 604.
 - varieties, Bul. 2, II, 89; Rec. II, 5, 356, 515; III, 701; IV, 556; V, 189, 785; VI, 142; VII, 215, 405; VIII, 888, 889, 977; X, 148; XII, 51.
- Asparagus officinalis* as affected by carbon dioxide, Rec. XII, 110.

Aspen—

- ash analyses of wood and bark, Rec. V, 256.
- tree and its uses, Rec. VIII, 891.

Aspens, notes, Rec. VI, 425.

Aspergillosis, experimental, Rec. XII, 1091.

Aspergillus—

- circinatus*, notes, Rec. XII, 567.
- flavus*—
 - development as affected by deleterious agents, Rec. XI, 910.
 - notes, Rec. XI, 67.
- fumigatus*—
 - as a cause of pneumomycosis, Rec. XII, 691.
 - notes, Rec. VIII, 524; IX, 363, 496, 694.
 - resistance of spores, Rec. VII, 279.

glaucus—

- disease of horses due to, Rec. III, 389.
- for producing cerebritis, Rec. V, 203.
- notes, Rec. XI, 67.

minimus, n. sp., notes, Rec. XI, 709.*niger*—

- analyses, Rec. VIII, 867.
- as affected by ammonium salts, Rec. IX, 922.
- conidia formation, Rec. XI, 424, 710; XII, 422.
- notes, Rec. V, 603, 902.
- oxalic acid fermentation, Rec. IX, 120.
- proteolytic action, Rec. XII, 916.

oryzae—

- fungus of Japanese saki brewing, Rec. VII, 20.
- notes, Rec. VII, 659; XII, 767.
- ostianus*, n. sp., notes, Rec. XI, 709.
- repens*, notes, Rec. IX, 1027.
- varians*, n. sp., notes, Rec. XI, 709.
- wentii*, notes, Rec. VII, 928.

Asperula—

- azurea*, notes, Rec. IX, 358.
- odorata*, notes, Rec. IX, 358.

Asphalt—

- analyses, Rec. X, 194, 229.
- fuel value, Rec. VI, 942.
- rock, analyses, Rec. VI, 274.
- vapor as affecting rose leaves, Rec. VI, 557.
- vapors injurious effect, Rec. IX, 61, 330.

Asphaltum bricks, behavior at different temperatures, Rec. X, 229.

Asphondylia—

- rubsaamena*, n. sp., notes, Rec. X, 660.
- trabuti*, notes, Rec. VII, 792.

Aspidiotus—

- affecting citrus fruits, Rec. XI, 657.
- black, Rec. X, 569.
- classification of genera, Rec. IX, 963.
- monograph, Rec. X, 569.
- new, on plums, Rec. VI, 1003.

Aspidiotus—

- æsculi*, notes, Rec. VII, 881; VIII, 417; IX, 663.
- ancylus*. (See SCALE, PUTNAM.)
- andromalas*, notes, Rec. IX, 1072.
- aurantii*. (See SCALE, RED.)
- biformis*, notes, Rec. IX, 371.
- camelliae*. (See SCALE, GREEDY.)
- citrinus*, notes, Rec. V, 409.
- coccineus*, notes, Rec. VI, 834.
- comstocki*, notes, Rec. VII, 881; VIII, 417.
- conchæformis*, notes, Rec. XI, 64.
- convexus*. (See SCALE, CONVEX.)
- crawii*, notes, Rec. IX, 1072.
- diffinis*, notes, Rec. XII, 166.
- fernaldi*, notes, Rec. X, 1060; XI, 274.
- ficus*. (See SCALE, RED.)
- forbesi*. (See SCALE, FORBES.)
- greenii*, notes, Rec. IX, 1072.
- hartii* on yam roots, Rec. VII, 413.
- hederæ*, notes, Rec. VI, 566; XI, 958.
- howardi*. (See SCALE, HOWARD.)
- juglans-regiæ*. (See WALNUT SCALE.)
- lutastei*, notes, Rec. VI, 443.
- limonii*, notes, Rec. VI, 438.
- nerii*, notes, Bul. 2, II, 58; Rec. IV, 203; V, 409; VI, 235; VII, 790; IX, 663.
- n. sp., notes, Rec. IV, 418; VII, 517.
- osborni*, notes, Rec. XI, 958.
- ostreaformis*. (See SCALE, EUROPEAN FRUIT.)
- perniciosus*. (See SAN JOSÉ SCALE.)
- rapax*. (See SCALE, GREEDY.)
- rosæ*, notes, Rec. IX, 663.
- rossi*, notes, Rec. X, 569.
- scutiformis*, notes, Rec. XI, 870.
- sp., notes, Rec. II, 418; IV, 838.
- spurcatus*, notes, Rec. XI, 274.
- tenebricosus*, notes, Rec. X, 160.
- ulmi*, notes, Rec. VII, 881; VIII, 417; IX, 662.
- uvæ*, notes, Rec. VI, 562; VII, 147; IX, 662; X, 768; XI, 274.
- zonatus*, notes, Rec. XI, 274.

Aspidisca splendoriferella, notes, Rec. V, 883; XI, 954.*Aspidistra lurida variegata*—

- anthracnose, notes, Rec. IV, 53.
- notes, Rec. V, 401.

Aspidium filix-mas, essential oil of root, Rec. V, 252.*Aspila virescens*, notes, Rec. X, 167.

Asplenium leaf sickness, Rec. V, 517.

Asses' milk—

- as a substitute for human milk, Rec. X, 389.
- composition, Rec. IX, 590.
- for infants, Rec. IX, 590.
- properties, Rec. XI, 973.
- studies, Rec. IX, 590.

Asses—

- statistics, Rec. III, 201.
 - tuberculosis in, Rec. X, 193; XI, 393; XII, 490.
- Assimilating tissue of stems of inland plants, Rec. IV, 314.

Assimilation—

- by plants in sunlight and shade, Rec. IV, 314.
- functional, Rec. VII, 523.
- of atmospheric nitrogen by plants. (See NITROGEN, ASSIMILATION.)
- isolated chloroplastids, Rec. X, 416.

Assimilation—Continued.

- of nitrogen by man as affected by atmospheric pressure, *Rec. IX*, 275.
- organic compounds, *Rec. IX*, 820.
- organic nitrogen by plants, *Rec. X*, 414.
- plants, *Rec. VIII*, 287; *IX*, 28, 325, 330, 922.
- plants—
 - as affected by hydrochloric acid, *Rec. XII*, 912.
 - proposed term, *Rec. X*, 726.

Assimilatory energy of blue and violet rays of the spectrum, *Rec. VIII*, 957.

Association—

- American Forestry, *Rec. III*, 434; *VI*, 253, 731; *VII*, 508; *IX*, 600.

American—

- for the Advancement of Science, meeting of Entomological Club of, *Rec. IV*, 668.
- of State Weather Services, *Rec. IV*, 226, 671; *VIII*, 34, 111.

British Botanical, *Rec. VII*, 370.

British, for the Advancement of Science, *Rec. VII*, 271, 341.

for Agricultural Experimentation in Saxony, *Rec. IV*, 319.

Forestry, of Minnesota, *Rec. VII*, 777.

Fruit Growers' of Ontario, report, *Rec. VI*, 56.

German Dairy, *Rec. V*, 360.

of Agricultural Research of Scotland, *Rec. III*, 835.

of American Agricultural Colleges and Experiment Stations, *Rec. I*, 57; *II*, 265; *III*, 106, 139, 813; *IV*, 397; *V*, 269, 272; *VI*, 257, 486, 944; *VII*, 169, 433, 632; *VIII*, 536, 541; *IX*, 303, 1099; *X*, 704; *XI*, 397, 405; *XII*, 198, 404.

Austrian Food Chemists and Microscopists, *Rec. VI*, 14.

Bavarian Representatives of Applied Chemistry, *Rec. V*, 253.

Economic Entomologists, *Rec. I*, 60; *Rec. II*, 269, 455; *III*, 326; *V*, 514, 543; *VI*, 650, 1008; *VIII*, 414; *IX*, 660; *X*, 60, 1058; *XI*, 1100; *XII*, 860.

Experiment Station Veterinarians—
constitution and by-laws, *Rec. X*, 793.
convention, *Rec. X*, 793.

German Agricultural Experiment Stations, *Rec. II*, 522; *III*, 208, 499; *IV*, 520, 612, 979; *V*, 356, 929; *VI*, 9, 486; *VII*, 12; *VIII*, 447, 462; *IX*, 699; *X*, 798, 817; *XI*, 505.

German Apothecaries, *Rec. V*, 356.

German Naturalists and Physicians, *Rec. III*, 136; *IV*, 108; *V*, 350, 356; *VI*, 486; *VII*, 364; *VIII*, 537; *X*, 192.

Official Agricultural Chemists, *Rec. I*, 237; *II*, 89, 608; *III*, 632; *IV*, 115, 580, *V*, 510, *VI*, 178, 614, 759; *VII*, 263, 921; *VIII*, 26, 272; *IX*, 226, 404, *X*, 504, 606, *XI*, 204, 310, 1007, *XII*, 503.

Swiss Analytical Chemists—

annual meeting, *Rec. V*, 433, 543; *VII*, 746.

bibliography for laboratories, *Rec. XI*, 1007.

Aster beetles—

- notes, *Rec. V*, 879, 883.
- remedies, *Rec. V*, 883.

Aster disease, notes, *Rec. XII*, 253.

Aster—

- canescens*, notes, *Rec. VI*, 732.
- cordifolius* var. *laevigatus*—
analyses, *Rec. III*, 629.
notes, *Rec. III*, 893.
- latahensis*, n. sp., description, *Rec. XII*, 24.
- lateriflorus*—
analyses, *Rec. III*, 629.
notes, *Rec. III*, 893.
- var. *hirsuticanlis*, analyses, *Rec. III*, 629.
- var. *hirsuticanlis*, notes, *Rec. III*, 893.
- longulus*, notes, *Rec. V*, 659.
- novae-angliae*, notes, *Rec. II*, 607.
- spinosus*, notes, *Rec. VI*, 732; *IX*, 142.

Asterella prosopidis, notes, *Rec. VIII*, 867.

Asterias forbesii, notes, *Rec. X*, 935.

Asteridium—

- bicolor*, notes, *Rec. VIII*, 671.
- illiciti*, n. sp., *Rec. VI*, 1000.
- prosopidis*, notes, *Rec. VIII*, 867.

Asternia radians, notes, *Rec. IV*, 956.

Asterocystis radialis, notes, *Rec. X*, 652.

Asterodiaspis quercicola. (See SCALE, IMPORTED.)

Asterolecanium—

- bambusae*, *Rec. VII*, 595.
- hederae*, notes, *Rec. VI*, 566.
- pustulans*, notes, *Rec. X*, 972.

Asteroma affecting Hemerocallis, *Rec. XI*, 261.

Asteroma codiaci, notes, *Rec. VII*, 513.

Asters— (See also CHINA ASTERS.)

- affected with Fusarium, *Rec. XI*, 261.
- cultivated, stem rot, *Rec. IX*, 324.
- fall-sown, *Rec. XII*, 451.
- fertilizers for, *Rec. V*, 879.
- kainit for nematodes on, *Rec. IV*, 930.
- nematode disease, *Rec. IV*, 929; *V*, 879.
- notes, *Rec. IV*, 653.
- ornamental, *Rec. IX*, 824.
- sickness, *Rec. IX*, 363.

Asthenia—

- in fowls, treatment, *Rec. XI*, 994.
- of poultry, notes, *Rec. XII*, 894.

Asti, Italy, Experiment Station at, *Rec. IV*, 236.

"Astor" as a feeding stuff for cows, *Rec. VIII*, 536.

Astragali, notes, *Rec. V*, 808, 936.

Astragalus—

- alpinus*, notes, *Rec. V*, 809.
- bisulcatus*, notes, *Rec. IV*, 924; *V*, 319.
- bromoides*, analyses, *Rec. IX*, 268.
- canadensis*, analyses, *Rec. VI*, 406.
- caryocarpus*, notes, *Rec. V*, 319; *VII*, 131; *VIII*, 306; *X*, 147, 343, 542.
- cicer*, analyses, *Rec. X*, 72.
- crassicaipus*. (See *Astragalus caryocarpus*.)
- drummondii*, notes, *Rec. V*, 319.
- clatiocarpus*, notes, *Rec. V*, 659.
- eremicus*, notes, *Rec. VI*, 114.
- falcatus*, analyses, *Rec. X*, 72.
- glyciphyllus*—
analyses, *Rec. X*, 72.
feeding value, *Rec. V*, 655.
- haydenianus*, notes, *Rec. IV*, 924.
- inyocensis*, notes, *Rec. VI*, 114.
- lotiflorus*, notes, *Rec. IV*, 924.
- mexicanus*, notes, *Rec. V*, 319.

Astragalus—Continued.

mollissimus, notes, Rec. IV, 924; V, 319; VI, 732; X, 516.

(See also LOCO WEED.)

panamintensis, notes, Rec. VI, 114.

scorbinatus, notes, Rec. V, 659.

sericoleucus, notes, Rec. V, 319.

spp., nomenclature, Rec. V, 659.

virginicus, notes, Rec. VI, 114.

Astrebla pectinata, notes, Rec. X, 416.

Astreptonema longispora, parasitic on *Gammarus locusta*, Rec. VII, 44.

Astronomy for meteorologists, Rec. X, 1018.

Astycus lateralis affecting tea, Rec. XI, 1062.

Asylum farm of Boise de Cery, Rec. XI, 198.

Atalapha—

cinerea, notes, Rec. X, 25.

novboracensis, notes, Rec. X, 25.

Atavism, in the potato, Rec. XI, 710.

Ataxia crypta, notes, Rec. IX, 370.

Athalia spinarum, notes, Rec. XI, 765.

Athous—

cucullatus, notes, Rec. III, 450.

rhombus, notes, Rec. XII, 1060.

rufifrons, notes, Rec. III, 450.

Athysanus—

bicolor, notes, Rec. IX, 153.

curtissii, notes, Rec. IX, 153.

gammaroides, n. sp., notes, Rec. VI, 564.

obtus, notes, Rec. IX, 153.

ornatus, notes, Rec. X, 372.

Atlanta Exposition, exhibits of U. S. Department of Agriculture, Rec. VIII, 836.

Atlas meal—

analyses, Rec. VI, 1023; VII, 336; VIII, 1003; X, 474.

description, Rec. XI, 971.

digestibility, Rec. VII, 317.

v. corn meal and bran for cows, Rec. IX, 879.

v. cotton-seed and linseed meals for cows, Rec. IX, 879.

Atmosphere— (See also AIR.)

actinic constitution, Rec. VIII, 964.

and leaves, exchange of gases between, Rec. VI, 782.

plants, exchange of carbonic acid and oxygen, Rec. IV, 448; V, 729.

the ether, Rec. XI, 620.

aqueous vapor in, Rec. VIII, 30.

argon in, Rec. VII, 17, 661.

as affected by sun and moon, Rec. VIII, 31, 964.

assimilation of gaseous nitrogen by microbes, Rec. V, 923.

at high altitudes, investigations, Rec. X, 730.

average temperature, Rec. XI, 621.

carbon dioxide of, as related to that of the ocean, Rec. XI, 622.

carbonic-acid—

content, Rec. IV, 222; X, 424.

gas in, Rec. VII, 845.

chemical—

and geological history, Rec. XII, 426.

composition, Rec. VI, 283.

circulation, Rec. VIII, 111.

circulatory movements, Rec. XII, 1015.

Atmosphere—Continued.

composition, Rec. V, 255, 819; VII, 17.

devoid of oxygen, vegetation in Rec. V, 539, 617.

direction of movement, Rec. X, 325.

diurnal—

oscillation, Rec. IX, 332.

variation in electricity, Rec. XI, 432.

hydrogen—

and methane in, Rec. VII, 290.

peroxid in, Rec. VI, 14.

in relation to life and health, Rec. VIII, 964.

line, integrals, Rec. XII, 1015.

mechanics, Rec. IV, 697.

occurrence of unknown substance, Rec. X, 424.

relative humidity, Rec. IX, 425.

studies, Rec. IX, 533, 814.

study by means of balloons, Rec. VIII, 755.

temperature—

of higher regions of, Rec. V, 924, 1029.

variations, Rec. XI, 517.

terrestrial, Rec. XI, 432.

town, influence on vegetation, Rec. VI, 278.

upper—

physical phenomena, Rec. VII, 661, 931.

studies, Rec. VIII, 964.

study by means of cloud observations, Rec. VIII, 755.

study from mountain stations, Rec. VIII, 755.

weight or mass, Rec. XI, 222.

Atmospheric—

circulation, laws, Rec. XII, 521.

disturbances, local, Rec. X, 1018.

dust, observations, Rec. VIII, 755; XI, 222; XII, 831.

electricity, Rec. IX, 332, 814.

electricity—

early experiments in, Rec. VIII, 675.

origin, Rec. X, 326.

humidity, effect on plant growth, Rec. XII, 1014.

moisture—

and artificial heating, Rec. XI, 127.

condensation, Rec. VII, 20.

nitrogen, assimilation of. (See also NITROGEN, ASSIMILATION.)

ozone, determination on Mount Blanc, Rec. VIII, 755, 870.

phenomena, photography, Rec. XI, 819.

precipitation, effect on plants and soils, Rec. VIII, 677; IX, 427; X, 125.

pressure—

effect on assimilation of nitrogen, Rec. IX, 275.

effect on germination and growth of plants, Rec. XII, 909.

effect on metabolism of nitrogen, Rec. IX, 275.

notes, Rec. XI, 819.

radiation, studies, Rec. XII, 723, 831.

refractions at surface of water, Rec. VIII, 676.

rolls, horizontal, Rec. VIII, 676.

survey, Rec. IX, 629.

tides, Rec. XII, 119.

tides as affected by moon, Rec. X, 125.

Atriplex— (See also SALT BUSH.)*campanulata*, analyses, Rec. XI, 637*cinerea*, notes, Rec. X, 546.*halimoides*—

culture, Rec. VIII, 596.

in New Zealand, Rec. XI, 842.

notes, Rec. VIII, 689; X, 546; XII, 936.

leptocarpa—

culture, Rec. VIII, 596.

in New Zealand, Rec. XI, 842.

notes, Rec. VII, 947; VIII, 687.

munimularia—

analyses, Rec. XI, 637.

culture, Rec. VIII, 596.

in New Zealand, Rec. XI, 842.

notes, Rec. VI, 45.

semibaccata—

analyses, Rec. VIII, 714.

culture, Rec. VIII, 596.

introduction into California, Rec. XI, 636.

notes, Rec. VI, 717, 721; VII, 947; VIII, 687; X, 244, 546, 1013; XI, 1034; XII, 936.

species, notes, Rec. V, 912.

stipitata, notes, Rec. X, 546.*tularensis*, notes, Rec. VI, 114.*vesicaria*, notes, Rec. X, 546.*Atriplex*, description of species, Rec. XI, 636.*Atropis*—*californica*, analyses, Rec. IV, 732.*lemmonii*, notes, Rec. IV, 951.*Atropis divinatoria*, notes, Rec. IX, 64.*Atta*—*cephalotes*, notes, Rec. VII, 594; VIII, 147.*octospinosa*, notes, Rec. VIII, 147.*scadens*, notes, Rec. IX, 465.*Attacus*—*altus*, notes, Rec. XII, 465.*ecceproia*, notes, Rec. IV, 838; V, 206.*Attagenus piceus*—

in Illinois, Rec. IV, 81.

notes, Rec. I, 224; VI, 1007; VIII, 241, 418; IX, 64, 66, 853.

Atteblabus cucullionides, notes, Rec. XI, 766.*Aucuba japonica*, leaf disease, Rec. XII, 658.

Auboni, Louisiana, Sugar School, notes, Rec. VI, 174.

Auger for soil sampling, improved form, Rec. IV, 985.

Augochlora—*humeralis*, notes, Rec. X, 469.*robertsoni*, notes, Rec. VIII, 910.*townsendi*, notes, Rec. VIII, 910.*Augochlora*, notes, Rec. IX, 371.*Aulacaspis*—*brometiae*, notes, Rec. XI, 1065.*rosea*, notes, Rec. VII, 411.*texensis* on *Sophora secundiflora*, Rec. VII, 792.*Aulax*—*chondrilla*, notes, Rec. VI, 151.*nabati*, notes, Rec. IX, 371.*Autocophara hilaris*, notes, Rec. VII, 792.*Autographum confluentis*, notes, Rec. X, 725.*Aureobasidium vilis*—*album*—

on grapes, Rec. IX, 660, 961.

n. var., Rec. XI, 261.

notes, Rec. VI, 432, 909.

Auricularia, culture, Rec. XII, 754.*Aurora*—

and the moon, Rec. X, 124.

australis of April 20, 1897, Rec. IX, 424.*borealis*, spectrum, Rec. VI, 965.

in Florida, Rec. XII, 25, 831.

in South Carolina and Kentucky, Rec. VII, 845.

international cipher code for correspondence respecting, Rec. V, 1086.

Auroras—

anomalous and sporadic, Rec. X, 326.

in Texas, Rec. XI, 819.

Australia, mountain stations in, Rec. X, 325.

Australian—

blue grass, notes, Rec. IV, 248.

fungi, new species, Rec. VII, 748; VIII, 28, 671.

parasites, notes, Rec. IV, 699.

rye grass, notes, Rec. V, 577.

saltbush. (See SALT BUSH, AUSTRALIAN.)

sugar-cane—

insects, Rec. V, 514.

pest, Rec. VIII, 906.

Austria-Hungary as a market for American wheat, Rec. IX, 599.

Austrian pine, notes, Rec. II, 143; IV, 655; V, 54.

Automatic gas apparatus, Rec. IX, 26.

Autumn—

catch crops, culture, Rec. V, 128.

coloring of leaves, Rec. V, 1037.

Auxanometer—

measurements of plant growth, Rec. IV, 352.

notes, Rec. XI, 911; XII, 558.

Avena— (See also OAT GRASS.)*clatona*—

analyses, Rec. VIII, 520; IX, 268.

notes, Bul. 2, I, 164; Rec. IX, 624.

fatua, notes, Rec. III, 598; IV, 47; VII, 135; VIII, 234.*flavescens*, notes, Rec. II, 594.*micrantha*, n. sp., notes, Rec. XI, 1015.*mortoniana*, notes, Rec. VII, 748.*salvia*, notes, Rec. V, 844, 856.

(See also OATS.)

stipoides, n. sp., notes, Rec. XI, 1015.

Avenine in oats, Rec. III, 11.

Aviculture, handbook, Rec. X, 83.

(See also POULTRY, CHICKENS, DUCKS, etc.)

Avoendo. (See ALLIGATOR PEAR.)

Awns—

of barley, experiments, Rec. VI, 506.

Gramineae, rôle, Rec. X, 718.

Axyris amaranthoides, notes, Rec. VIII, 703.*Ayrshire*—

cattle, notes, Rec., XI, 983.

cows—

composition of milk, Rec. V, 945.

feeding tests, Rec. IV, 255, 263, 268.

for butter and cheese production, Rec. V, 319.

management, Rec. XI, 788.

Azalea—*indica*, new disease, Rec. XI, 261.*pontica*, notes, Rec. XI, 271.

spp., notes, Rec. IV, 655.

Azalea scale in Michigan, Rec. VI, 440.

- Azaleas**—
 affected by *Septoria azaleae*, Rec. XI, 759.
 culture, Rec. X, 440.
 forcing, Rec. X, 152.
- Azo-colors**, detection in milk, Rec. XII, 823.
- Azotin**, available phosphoric acid in, Rec. V, 288.
- Azoturia**—
 notes, Rec. IV, 275.
 treatment, Rec. XI, 192.
- Aztec coffee**—
 culture experiments, Rec. III, 82.
 germination tests, Bul. 2, 1, 30.
- Babcock test**—
 bottle for skim milk and buttermilk, Rec. IX, 885.
 correction, Rec. X, 593.
 directions for using, Rec. VIII, 834.
 for dairy products, Rec. X, 892.
 in creameries, Rec. VIII, 347.
 modification, Rec. IX, 184; X, 1096.
- Baby foods**, analyses, Rec. VII, 708.
- Baby's breath**, notes, Rec. IV, 654.
- Bachelor of science course**, studies, Rec. VIII, 637.
- Bachelor's button**, notes, Rec. XI, 858.
- Bacilli**—
 and other fungi, cellulose in, Rec. VI, 110.
 axes and planes, Rec. VII, 278.
 chemical composition, Rec. V, 254.
 locomotion, Rec. V, 819.
 pathogenic, nonmotile in pigs, Rec. V, 512.
- Bacillol** as an antiseptic, Rec. XII, 194.
- Bacillus**—
acidi lactici—
 in the dairy, Rec. IX, 793.
 notes, Rec. II, 617; III, 383, 422; V, 1058.
 occurrence in milk, Rec. XII, 1083.
aërogenes, notes, Rec. IX, 924.
alvei— (See also FOUL BROOD.)
 notes, Rec. II, 110, 662; VIII, 147, 416, 472; XI, 291.
 studies, Rec. XII, 966.
amylobacter, on potatoes, Rec. VII, 311.
amylovorus, notes, Rec. VI, 560; X, 451; XI, 260, 758.
anthracis— (See also ANTHRAX.)
brevirigenmans, notes, Rec. XII, 892.
claviformis, notes, Rec. VI, 1024; VII, 20.
 notes, Rec. II, 159; XI, 492.
similis, notes, Rec. X, 694; XI, 194, 493.
 transmission to fetus, Rec. X, 192.
aromaticus—
 notes, Rec. V, 1062.
 of cheese, Rec. V, 208.
baccarinii—
 as a cause of grape gummosis, Rec. X, 224.
 notes, Rec. IX, 924.
betæ, notes, Rec. IX, 362; XII, 458.
butyri fluorescens, notes, Rec. III, 422.
caulivorus, notes, Rec. V, 1018, 1019.
coli communis—
 notes, Rec. IX, 624.
 spore formation, Rec. VII, 929.
cubonianns, notes, Rec. IX, 362.
delavariensis, n. sp., description, Rec. XII, 721.
dialtrypticus casei, notes, Rec. V, 1061.
- Bacillus*—Continued.
diphtheriæ, notes, Rec. V, 1046.
elegans, n. sp., notes, Rec. XI, 861.
ellenbachensis alpha, notes, Rec. X, 121, 223.
 (See also ALINIT.)
ellenbachensis, studies, Rec. XI, 917, 1016.
esteritidis, as affected by salt solutions, Rec. XI, 594.
ethaceticus, fermentation of arabinose with, Rec. IV, 315.
fluorescens liquefaciens, notes, Rec. III, 383; XII, 360.
fusidus lactis, notes, Rec. VI, 84.
gallicus—
 n. sp., Rec. XI, 714.
 parasitism, Rec. X, 166.
gaytoni, notes, Rec. II, 110; VI, 149.
gossypina, n. sp., notes, Rec. VI, 145.
guillebau, notes, Rec. V, 921.
hofmanni, notes, Rec. VIII, 909.
insectorum, notes, Rec. X, 1070.
lactis aërogenes, occurrence in milk, Rec. XII, 1083.
lactis viscosus, notes, Rec. XI, 282.
luteus sporogenes, notes, Rec. X, 1016.
lycopersici, notes, Rec. XI, 861.
mallei— (See GLANDERS).
megatherium—
 in root tubercles, Rec. XII, 719.
 studies, Rec. XI, 1016.
mesentericus niger, notes, Rec. VIII, 472.
mesentericus vulgatus, as cause of sticky and slimy bread, Rec. XI, 565.
morbificans bovis, as affected by salt solutions, Rec. XI, 594.
mycoides, notes, Rec. V, 615; XII, 458.
nobilis for ripening Emmenthaler cheese, Rec. XII, 884, 986.
oleæ as a cause of olive knot, Rec. X, 55.
orthobutylicus, anaerobic fermentation by, Rec. VI, 280.
phaseoli—
 causing blight of Lima beans, Rec. XI, 757.
 notes, Rec. IX, 1058.
prodigiosus, notes, Rec. XII, 722.
proteus, notes, Rec. X, 597.
proteus vulgaris, as affected by salt solutions, Rec. XI, 594.
pseudanthracis in flesh meal, Rec. IX, 148.
pseudo-tuberculosis in milk, Rec. XII, 1080.
pyocyaneus—
 immune serums, Rec. XII, 890.
 notes, Rec. V, 1018.
radicicola, ability to accommodate itself to foreign media, Rec. VIII, 868.
ramosus, biology, Rec. VII, 658.
ruber oratus, notes, Rec. X, 562.
schafferi, notes, Rec. V, 921.
solanacearum, notes, Rec. X, 1053; XI, 465.
soli, n. sp., description, Rec. XII, 721.
sorghii, notes, Bul. 2, II, 34; Rec. II, 318; VI, 714.
subtilis—
 action in denitrification, Rec. X, 1016.
 notes, Rec. V, 902; VIII, 472.
 studies, Rec. XI, 1016.
tabaci I, notes, Rec. XII, 720.

Bacillus—Continued.

- tracheiphilus*—
 - causing bacteria wilt of melons, Rec. XI, 754.
 - notes, Rec. XI, 465.
 - on cucurbits, Rec. VII, 311.
- tuberculosis*. (See TUBERCLE BACILLI.)
- tumescens*, notes, Rec. VIII, 472.
- typhi abdominalis*—
 - agglutination, Rec. IX, 692.
 - in milk and butter, Rec. X, 995; XI, 786.
 - notes, Rec. XI, 427.
- typhi murium*, for destruction of mice, Rec. VII, 842.
- vascularum*, notes, Rec. VII, 513.
- vitivorus*, notes, Rec. XII, 1053.

Bacillus—

- arrangement of species, Rec. XI, 424.
- icteroid, Rec. XI, 192.
- nitrate-destroying, Rec. VII, 929.
- of Friedlander, in tonsillitis and pharyngitis, Rec. IX, 392.
- hog cholera group in pigeons, Rec. VII, 525.
- Nocard-Preisz, Rec. XI, 696.
- rats, Rec. XI, 393.
- pathogenic—
 - on phylloxera, Rec. IX, 860.
 - to rats, Rec. XII, 789.
- poisonous, in ice cream and cheese, Rec. VIII, 933.
- violet pigment forming, Rec. IX, 1030.

Backhousia citriodora, notes, Rec. XI, 1052.*Bacon*—

- beetle, notes, Rec. I, 224.
- curing, Rec. X, 992; XI, 497; XII, 1078.
- effect of feeding and exercise on, Rec. XI, 670.
- exports, Danish, Rec. VII, 812.

Bacteria—

- acetic, Rec. X, 123, 224.
- acetic acid, Rec. VII, 20; IX, 627, 1030.
- acetic acid—
 - botanical study, Rec. V, 650.
 - physiology and morphology, Rec. IX, 627.
- agglutination and immobilization, as related to growth, Rec. XI, 90.
- anaerobic, Rec. VII, 279.
- anaerobic—
 - as cause of disease, Rec. XI, 194.
 - affected by oxygen, Rec. IX, 229.
 - culture apparatus, Rec. VI, 18.
 - cultivation, Rec. VI, 115.
 - growth, Rec. X, 322.
 - plate cultures, Rec. VI, 389.
 - studies, Rec. XI, 288.
- and barnyard manure, Rec. XI, 331.
- fermentation, review of works, Rec. V, 650.
- rancidity of butter, Rec. V, 816, 1023, 1047.
- their toxins, relation, Rec. VII, 658.
- action under high pressure, Rec. VI, 507.
- as affected by—
 - culture medium, Rec. X, 123.
 - electricity, Rec. VII, 928; VIII, 472.
 - formaldehyde, Rec. V, 924.

Bacteria—Continued,

- as affected by—
 - light, Rec. V, 435, 729; VI, 280, 389, 507; VII, 19, 95; IX, 924; X, 1013; XII, 914.
 - metals, Rec. VII, 280.
 - Röntgen rays, Rec. VIII, 473; IX, 627.
 - salt, Rec. XI, 594.
 - soluble products, Rec. VI, 18.
 - sunlight, Rec. XII, 118.
 - tannin, Rec. IX, 229.
 - temperature of liquefied air, Rec. XII, 913.
- as ferments, Rec. XI, 125, 714.
- biology, Rec. X, 224.
- bibliography of literature, Rec. XII, 721.
- capsules, method of staining, Rec. XII, 1094.
- chemistry, Rec. V, 345, 435.
- classification, Rec. VI, 969; VII, 928; X, 519; XII, 117.
- colonies in tube cultures, Rec. XI, 714.
- coloration, Rec. VII, 279.
- composition as affected by culture medium, Rec. IV, 614.
- conveyance by underground water, Rec. X, 731.
- cultures—
 - for buttermaking, Rec. III, 653; VIII, 261; IX, 589, 1088.
 - ripening cream. (See CREAM RIPENING.)
 - ripening cream, hermetic sealing, Rec. VII, 660.
 - in cheese making, Rec. IX, 388, 689; X, 996.
 - (See also CHEESE MAKING.)
 - isolation of rennet from, Rec. V, 563.
 - oven, new, for, Rec. VIII, 473.
- decomposing cement, Rec. XI, 715.
- denitrifying, Rec. VIII, 574; IX, 635, 1040; X, 929.
- development, Rec. XII, 915.
- diastatic action, Rec. V, 254, 435.
- effect—
 - on cheese flavor, Rec. X, 294.
 - culture media, Rec. IX, 814; XI, 715.
 - development of plants, Rec. XII, 614.
 - eggs, Rec. IX, 87.
 - gelatin, Rec. XII, 114.
 - germination, Rec. VIII, 566.
 - plant tissues, Rec. IX, 852.
 - toxins, Rec. IX, 1092.
- elimination by the kidneys and liver, Rec. XII, 489.
- excretion—
 - by animal body, Rec. IX, 694.
 - through milk glands, Rec. VII, 71.
- feeding on saltpeter, Rec. VI, 196.
- flagella, Rec. XII, 722.
- flagella, staining, Rec. VI, 487.
- for destroying—
 - mice, Rec. V, 1104; VII, 842, 929; VIII, 473.
 - rabbits, Rec. IX, 530.
- for dissolving casein, Rec. VIII, 742.
- formation of oxalic acid from grape sugar, Rec. XII, 722.
- fluorescent, biology, Rec. VII, 279.
- functions, Rec. X, 1015.

Bacteria—Continued.

- gas produced by, Rec. VIII, 473.
- gas-producing, Rec. VII, 659.
- gas-producing, in cheese, Rec. VIII, 730.
- general notes, Bul. 2, II, 34.
- growth as affected by formalin, Rec. XI, 469.
- immunity of lactic glands, Rec. XI, 995.
- in agriculture, Rec. IV, 111; VI, 389, 966; X, 123; XI, 125, 714; XII, 117.
- (See also NITROGEN, ASSIMILATION; DAIRYING, etc.)
- air, food, and drink, Rec. VIII, 868.
- air of semidesert region of New Mexico, Rec. XII, 913.
- air passages, Rec. X, 794.
- animal diseases, Rec. V, 512, 734.
- barnyard manure, Rec. VI, 969; VII, 292; XI, 39, 331.
- barnyard manure, decomposing nitrates, Rec. X, 533.
- barnyard manure, physiological rôle, Rec. VII, 279.
- British baked bread, Rec. VII, 793.
- butter, Rec. III, 422; V, 208; X, 995.
- buttermilk, Rec. V, 208.
- caterpillars, Rec. V, 819.
- caterpillars, notes, Rec. VI, 65, 655.
- cheese, Rec. VIII, 265; IX, 586; XI, 487; XII, 984.
- cheese curd, Rec. V, 208.
- cheese making, Rec. VI, 941; IX, 388, 689.
- cheese ripening, Rec. X, 592, 996.
- cover glass preparations, Rec. IX, 628.
- cow dung as affected by food, Rec. VII, 942.
- cream, species, Rec. III, 382.
- dairy products. (See MILK, BUTTER, CHEESE, etc.)
- dust and soil, vitality, Rec. IX, 814.
- feces as affected by diet, Rec. IX, 480.
- feeding stuffs, determination, Rec. VII, 518.
- flowers, Rec. XI, 713.
- foods, Rec. XII, 118.
- gardening, Rec. VIII, 314.
- grain, Rec. VII, 658.
- hens' eggs, Rec. IV, 976; IX, 87.
- hot springs, Rec. V, 650.
- lacteal secretion, Rec. X, 1096.
- mice as affected by certain saprophytes, Rec. XI, 393.
- milk. (See MILK, BACTERIA IN.)
- milk ducts of cow's udder, Rec. X, 390, 994.
- oysters, Rec. IX, 924.
- relation to higher plants, Rec. XII, 721.
- relation to gardeners, Rec. IX, 457.
- rennet, Rec. V, 208.
- roots of *Phaseolus multiflorus*, Rec. XI, 1061.
- soil, air, and water, Rec. IX, 229.
- soils. (See SOIL BACTERIA.)
- sour corn, Rec. XII, 876.
- sputa and cryptogamic flora of the mouth, Rec. VII, 278.
- stables, Rec. IX, 813.
- street dust as affected by sprinkling, Rec. XI, 287.
- sugar cane, Rec. VIII, 706.
- sugar production, Rec. VII, 530.

Bacteria—Continued.

- in tobacco fermentation, Rec. III, 354, 367; XII, 720.
- vinegar, Rec. X, 1016; XI, 715.
- water, Rec. VI, 694; IX, 627.
- water—
 - destruction by infusoria, Rec. V, 127.
 - method of examining, Rec. X, 520.
 - pathogenic, Rec. IX, 627.
- whey, Rec. V, 208.
- wine, disorders, Rec. XI, 652.
- inefficiency of separators for removing, Rec. VIII, 831.
- intestinal, as related to nutrition, Rec. X, 885.
- inversion of sucrose by, Rec. VII, 365.
- investigation, new methods, Rec. X, 224.
- investigations, Rec. VII, 279.
- isolation, Rec. VII, 19.
- key to species, Rec. XII, 721.
- longevity, Rec. IX, 627.
- lysol for suppressing, Rec. VII, 280.
- morphology, Rec. VII, 928.
- nitrate-destroying, Rec. VIII, 391.
- nitrate-reducing, Rec. VII, 279; XI, 830.
- normal to digestive organs of Hemiptera, Rec. III, 811.
- notes, Rec. II, 110.
- nuclei, Rec. XII, 722.
- of acetification, study, Rec. IV, 693.
- blackleg, notes, Rec. II, 364.
- contagious diseases of animals as affected by acids, Rec. VII, 618.
- hog cholera, Rec. I, 103.
- lactic fermentations, nomenclature, Rec. VIII, 933.
- oxygen requirement, Rec. XII, 722.
- pathogenic—
 - adaptability, Rec. XII, 489.
 - effect on leucocytes, Rec. XII, 1084.
 - in domestic animals, Rec. V, 512.
 - living plant tissues, Rec. VII, 928.
- peptonizing, Rec. VII, 659.
- phylogeny and polymorphism, Rec. XI, 125.
- physiology, Rec. VII, 929.
- physiological activity as affected by conditions of growth in cheese, Rec. XI, 389.
- pigments produced by, Rec. IX, 422.
- plasmolysis, Rec. X, 322.
- position in systems of fungi, Rec. XII, 117.
- preparation of culture media, Rec. XI, 122.
- products, nature and manufacture, Rec. VII, 928.
- pure cultures. (See BACTERIA, CULTURES.)
- reduction—
 - of nitrates by, Rec. VII, 926.
 - phenomena, Rec. VII, 929.
- relation to tobacco culture and manufacture, Rec. VIII, 224.
- repression through culture of legumes, Rec. VI, 874.
- reserve material, Rec. XII, 722.
- resistance to dry heat, Rec. VIII, 472.
- resorption after local infection, Rec. IX, 694.
- review of works on, Rec. VII, 658.
- rôle—
 - in decomposition of manure, Rec. VII, 279; IX, 228; X, 35.

Bacteria—Continued.

rôle—continued.

in nature, Rec. VII, 658.

nutrition of insectivorous plants, Rec. VIII, 564.

spore formation, Rec. XII, 721, 722.

spores—

germination, Rec. IX, 814.

resistance to temperature and moisture,

Rec. VII, 659.

staining, Rec. VI, 487; IX, 626, 628; XII, 1094.

structure, Rec. XII, 489, 721, 915.

studies, Rec. IX, 121, 294, 627.

tainting cheese curd, Rec. X, 1093.

thermophilous, Rec. XII, 722.

toxicogenic, in domestic animals, Rec. V, 512.

Bacterial—

and physiological work, thermostat for, Rec. VII, 273.

colonies, formation, Rec. VII, 659.

diseases, notes, Rec. VII, 141.

life, chemical relations, Rec. III, 749.

plate cultures, Rec. VIII, 473.

products in the separation of species, Rec. VII, 279.

Bactericide action, as affected by over immunization, Rec. XI, 292.

Bacteriological—

analysis, practical guide, Rec. X, 520.

apparatus, description, Rec. XII, 391.

methods and work, Rec. VII, 179.

researches, practical results, Rec. VII, 928.

Station of—

Kazan, report, Rec. XI, 195.

Kharkov, report, Rec. XI, 194.

Bacteriology—

applied, Rec. VIII, 868.

as applied to canning, Rec. XII, 79, 876.

atlas, Rec. X, 520.

bibliographic journal, Rec. XII, 502.

dairy, Rec. IV, 75, 113, 987; V, 361, 440, 454, 927, 1003, 1043, 1101; VI, 482, 754; VII, 428, 806, 808; VIII, 259, 441; IX, 183, 185, 793, 990; X, 389, 593, 792; XI, 688, 886.

dairy, in Denmark, Rec. V, 609.

(See also MILK, BUTTER, CHEESE, etc.)

elementary, Rec. VI, 95.

in agriculture, Rec. IV, 111; VI, 389, 966; X, 123; XI, 125, 714; XII, 117.

natural history, Rec. VIII, 868.

in relation to—

chemistry, Rec. V, 1098.

mycology and physiology, Rec. V, 1098.

tanning, Rec. VI, 1027.

introduction to study, Rec. X, 224.

laboratory manuals, Rec. IV, 108; VII, 278;

IX, 627, 814, 996, 1030; X, 520; XII, 915.

manual of principles, Rec. XI, 125.

of infectious diseases, Rec. IX, 95.

suppuration, Rec. IV, 868, 873.

water, Rec. IV, 517.

paper on, Rec. XII, 698.

progress in, Rec. VII, 95.

studies, Rec. IX, 1029.

systematic, Rec. VIII, 473; IX, 924; XII, 721.

text-book, Rec. VIII, 868; IX, 627; XII, 915.

treatise, Rec. XII, 117, 889.

Bacteriolytic enzymes and immunity, Rec. XI, 194.

Bacterium—

aërogenes lactis, notes Rec. III, 422.*ambiguum*, n. sp., description, Rec. XII, 721.*apii*, notes, Rec. IX, 850.*asthenix*, n. sp., notes, Rec. XI, 994.*butyri colloideum*, notes, Rec. III, 422.*chauvæi*, notes, Rec. VII, 67.

(See also BLACKLEG.)

coli anaërogenes, notes, Rec. IX, 392.*coli anindolicum*, notes, Rec. IX, 392.*coli commune*—

as affected by salt solutions, Rec. XI, 594.

producing omphalitis in calves, Rec. XI, 797.

diphtheroides—

in milk, Rec. XII, 1080.

notes, Rec. XII, 987.

discissum, notes, Rec. IX, 1088.*fermentationis*, n. sp., description, Rec. XII, 721.*gelatinosum betæ*, notes, Rec. VII, 591.*hyacinthi*, notes, Rec. IX, 457.*lactis acidii*, notes, Rec. XI, 284.*lactis longi*, notes, Rec. XI, 284.*megatherium*, notes, Rec. XI, 715.*monachæ*, notes, Rec. VI, 63, 568, 1008.*mori*, notes, Rec. V, 424; VIII, 995.*oncidii*, notes, Rec. X, 1057.*pabuli acidii*, n. spp., Rec. XI, 714.*radiatum*, n. sp., description, Rec. XII, 721.*radicicola*, notes, Rec. XII, 118.

(See also NITROGEN, ASSIMILATION.)

sanguinarium—

notes, Rec. XI, 985.

n. sp., notes, Rec. IX, 890.

septicæmiæ hæmorrhagica, producing omphalitis in calves, Rec. XI, 497.*typhi murium* for destroying mice, Rec. IX, 195.

Bacterium—

false, notes, Rec. VII, 563.

of Permian period, Rec. VI, 196.

Bag moths, Australian, notes, Rec. XI, 658.

Bagasse ashes, analyses, Rec. XII, 626.

Baguio of the Philippines, Rec. XI, 819.

Bagworms—

notes, *Bul.* 2, 1, 177; Rec. II, 318; IV, 840; V, 498, 684, 884; VI, 151; VII, 517, 696; VIII, 416, 804, 909, 999; IX, 370, 371, 858, 962, 964; X, 62, 458; XI, 66, 170, 952; XII, 365.

remedies, Rec. VIII, 140, 416, 902; IX, 371.

Baird's gopher, notes, Rec. VII, 20.

Bakeries—

unclean, Rec. VIII, 521.

workrooms in, Rec. IX, 1078.

Bakery—

experiments, Rec. IX, 79; X, 174.

refuse, analyses, Rec. IV, 64.

Baking—

properties and gluten content of flour, Rec. V, 257.

qualities of rye from different sources, Rec. VII, 155.

tests of wheat flour, Rec. IV, 408; VII, 518.

- Baking powder**—
 adulteration, *Rec. XI*, 278, 971.
 analyses, *Rec. I*, 238; *IV*, 64; *V*, 194; *VI*, 401; *VII*, 294, 336; *VIII*, 520; *X*, 315; *XI*, 314.
 containing alum, effect on peptic digestion, *Rec. IV*, 389.
 notes, *Rec. XII*, 477.
- Balance**—
 chemical, of an intensive form, *Rec. X*, 1005.
 device for adjustment, *Rec. VI*, 273.
 for weighing coarse fodders, *Rec. IV*, 665.
 hydrostatic—
 new, *Rec. X*, 118.
 Sartorius's new form, *Rec. V*, 251.
 specific gravity, for testing mother beets, *Rec. VII*, 364.
- Balances**—
 analytical—
 attachments for holding the rider, *Rec. V*, 251; *VI*, 377.
 improvements in, *Rec. VI*, 504.
- Balaninus**—
carvotypes, notes, *Rec. IX*, 463; *X*, 962.
proboscideus, notes, *Rec. VI*, 561, 836.
 (*See also* CHESTNUT WEEVIL.)
quercus, notes, *Rec. VI*, 440.
rectus, notes, *Rec. VI*, 836; *X*, 962.
uniformis, notes, *Rec. VI*, 440.
- Balbiana**, notes, *Rec. XI*, 894.
- Balbiana**—
falcatula, notes, *Rec. V*, 514.
rileyi, notes, *Rec. V*, 514.
- Bald eagle**, notes, *Rec. VI*, 694.
- Balloon**—
 ascensions, *Rec. VIII*, 207, 676, 755.
 ascensions—
 at St. Petersburg, *Rec. XII*, 831.
 in France, *Rec. IX*, 332; *XI*, 430, 621.
 international, *Rec. X*, 326.
 experiments, *Rec. XII*, 920.
 voyages, *Rec. XII*, 119.
- Balloons and kites**, *Rec. XII*, 1016.
- Balm**—
 cultivated, mint rust on, *Rec. VI*, 826.
 variegated, notes, *Rec. V*, 741.
- Balm of Gilead**, notes, *Rec. III*, 521; *VI*, 425; *XI*, 1051; *XII*, 153, 559.
- Balsam apple**, herbaceous grafting, *Rec. II*, 508.
- Balsamineæ**, proteid, *Rec. IX*, 812.
- Balsams**, analysis methods, handbook, *Rec. XI*, 1008.
- Baltet**, pruning tables, *Rec. XI*, 852.
- Baltimore oriole**—
 economic relations, *Rec. XII*, 423.
 food habits, *Rec. VIII*, 752.
 notes, *Rec. XI*, 428.
- Bamboo**—
 ashes, analysis, *Rec. X*, 716.
 culture, *Rec. VI*, 550.
 culture in—
 England, *Rec. VII*, 760.
 southern Africa, *Rec. XI*, 549.
 seed, analysis, *Rec. VII*, 92.
 shoots, growth, *Rec. XI*, 910.
- Bamboos**—
 distribution, *Rec. III*, 597.
 economic use, *Rec. X*, 552.
- Bamboos**—Continued.
 flowering, *Rec. VII*, 92.
 for ornamental gardening, *Rec. VII*, 688.
 hardy, culture, *Rec. VIII*, 601.
 notes, *Rec. VI*, 636; *XI*, 423.
- Banana**—
 analyses, *Rec. IV*, 59, 315, 507; *XII*, 280, 1076.
 and breadfruit flour, *Rec. XII*, 1076.
 blight, treatment, *Rec. V*, 354.
 borer in Trinidad, *Rec. V*, 328.
 Cavendish, analyses and food value, *Rec. IV*, 315, 507; *VI*, 219.
 classification, *Rec. VII*, 404.
 culture, *Rec. VI*, 219; *VII*, 404; *XI*, 451.
 culture in—
 Honduras, *Rec. V*, 134.
 Nicaragua, *Rec. IX*, 245.
 decay, *Rec. V*, 401.
 disease—
 in Trinidad, *Rec. VI*, 305.
 notes, *Rec. XII*, 573.
 salt for, *Rec. VII*, 39.
 fermentation, *Rec. V*, 128.
 fertilizers for, *Rec. VI*, 815; *VII*, 217; *XI*, 744.
 flour—
 analyses, *Rec. XI*, 79, 154; *XII*, 279, 280, 377, 1076.
 manufacture and use, *Rec. VIII*, 1014.
 notes, *Rec. VII*, 155; *XI*, 575; *XII*, 798, 980.
 for cows, *Rec. VIII*, 440.
 yeast, malt, etc., *Rec. VI*, 424.
 invertase in, *Rec. V*, 252, 329.
 leaves, rate of growth, *Rec. VII*, 925.
 notes, *Rec. XI*, 154; *XII*, 450.
 packing and shipment, *Rec. VI*, 424.
 pea, culture experiments, *Rec. IX*, 41.
 propagation, properties, and uses, *Rec. V*, 652.
 skins, analyses, *Rec. IV*, 44.
 stalks, analyses, *Rec. X*, 678.
 sugar, determination as affected by a ferment, *Rec. V*, 127, 223.
 uses, *Rec. V*, 652; *VI*, 219; *VII*, 585.
 weevil, notes, *Rec. XII*, 465.
- Band treatment** for codling moth, *Rec. III*, 600.
- Banded emphytus**. (*See* ROSEWORM, CURLED.)
- Banded mosquito** of Bengal, notes, *Rec. VII*, 594.
- Bands**, tarred paper, *Rec. XI*, 175.
- Banking**, cooperative—
 in Austria-Hungary, *Rec. III*, 253.
 Germany, *Rec. III*, 107.
 Italy, *Rec. III*, 905.
 Russia, *Rec. II*, 673; *III*, 905.
- Baptisia**, a hybrid, *Rec. V*, 741.
- Barbarea**—
intermedia, cabbage grafted on, *Rec. V*, 1089.
vulgaris—
 notes, *Rec. IV*, 47; *V*, 398; *IX*, 143, 105.; *X*, 1083.
 root system, *Rec. IV*, 46.
- Barbary duck**, notes, *Rec. V*, 439.
- Barberry**— (*See also* BERBERIS.)
 alkaloids in, *Rec. III*, 654.
 as a disseminator of grain rust, *Rec. IX*, 660, 759; *X*, 58.
 a host plant for grain rusts, *Rec. IX*, 569.
 common, notes, *Rec. IV*, 655.
 creeping, notes, *Rec. III*, 521.

Barberry—Continued.

- edible, *Rec. VIII*, 55.
- European, notes, *Rec. IV*, 655.
- notes, *Rec. VI*, 221, 299.
- purple-leaved, notes, *Rec. IV*, 655.
- rust, *Rec. VIII*, 898; *X*, 58, 1057.
- rust, inoculation experiments, *Rec. VIII*, 795.
- summer propagation, *Rec. III*, 230.
- Thunberg's, notes, *Rec. IV*, 655.

Barbitistes berengueri, notes, *Rec. VI*, 838.

Barcena, Mariano—

- death, *Rec. XI*, 429.
- successor to, *Rec. XI*, 620.

Bari, Italy, oil-making school at, *Rec. IV*, 330.

Baris—

- confinis*—
- life history, *Rec. II*, 268.
- notes, *Rec. VIII*, 504, 911.
- scotopacea*, means of distribution, *Rec. XII*, 663.

Barium—

- arsenate as an insecticide, *Rec. IX*, 661.
- as a substitute for calcium in plants, *Rec. XII*, 219.
- chlorid—
- for colic, *Rec. VII*, 712.
- in sugar making, *Rec. VII*, 529.
- effect on plants, *Rec. VII*, 467.
- hydrate in butter analyses, *Rec. V*, 252.
- occurrence in plants and soils, *Rec. XI*, 619.
- salts, effect on growth of wheat, *Rec. XII*, 911.
- strontium, and lime, quantitative separation, *Rec. IV*, 983.
- sulphate, solubility, *Rec. VIII*, 454.
- volumetric determination, *Rec. V*, 647.

Bark, abnormal, of *Abies pectinata* and *Picea excelsa*, *Rec. VI*, 196.

Bark beetle—

- Columbian, notes, *Rec. VI*, 651.
- destroyer, European, *Rec. IX*, 962; *XI*, 475.
- fruit-tree—
- notes, *Rec. XI*, 268, 272, 366, 498.
- remedies, *Rec. XI*, 264.
- German, *Rec. VIII*, 711.
- injuries, *Rec. X*, 570.
- Isaria tomicii* attacking, *Rec. VIII*, 145.
- notes, *Rec. VI*, 316, 654; *XII*, 975.
- spruce, notes, *Rec. V*, 311.

Bark beetles— (*See also* DENDROCTONUS.)

- of Austria, *Rec. X*, 168.
- Bosnia and Herzegovina, *Rec. X*, 168.
- Denmark, *Rec. X*, 769.

Bark borer, flat-headed, notes, *Rec. XI*, 764.

Bark lice from Jamaica food plants, *Rec. IV*, 851.

Bark louse— (*See also* SCALE INSECTS.)

- affecting *Myricaria cauliflora*, remedies, *Rec. XI*, 476.

in a tree trunk, *Rec. VIII*, 108.

oyster shell—

- and San José scale, distinctions, *Rec. VIII*, 613.

locomotion of larvæ, *Rec. XII*, 869.

- notes, *Bul. 2*, II, 58; *Rec. II*, 169; *III*, 132, 176, 198, 230, 313; *IV*, 783; *V*, 498; *VI*, 654, 740; *VII*, 42, 514, 696; 790; *VIII*, 68, 69, 321, 999, 1002; *IX*, 663, 856, 858; *X*, 62, 160, 164, 268, 459, 569, 766, 768, 866, 1042; *XI*, 66, 170, 657, 762, 1057; *XII*, 68, 467, 468, 469, 869.

Bark louse—Continued.

- oyster shell—continued.
- on American fruit, *Rec. XI*, 655; *XII*, 971.
- remedies, *Rec. III*, 889; *VII*, 592; *X*, 569; *XI*, 958; *XII*, 580, 665.
- scurfy. (*See* SCALE, SCURFY.)

Bark miners, notes, *Rec. XI*, 763.

Bark—

- of trees, investigations, *Rec. IX*, 812; *X*, 644.
- protection against insects, *Rec. XII*, 1064.

Barkhausia grafted on dandelion, *Rec. V*, 1089.

Barks, astringent, of India, *Rec. VII*, 719.

Barley—

- acreage, *Rec. III*, 53.
- acreage—
- in Canada, *Rec. II*, 521.
- Great Britain, 1891 and 1892, *Rec. IV*, 521.
- after-ripening and germination, *Rec. XI*, 1054.
- Alinit experiments, *Rec. X*, 927; *XII*, 338.
- (*See also* ALINIT.)
- analyses, *Rec. III*, 401, 890; *IV*, 733; *V*, 64, 256, 614, 625, 1098; *VI*, 25, 524, 569, 715, 1008; *VII*, 296, 336, 396, 614; *VIII*, 426, 595, 884; *X*, 678, 946; *XI*, 643; *XII*, 70, 223, 378, 907.
- analyses of—
- ash, *Rec. III*, 890; *X*, 873.
- bran, *Rec. XII*, 877.
- chaff, *Rec. II*, 579.
- Danish, *Rec. V*, 626.
- Egyptian, *Rec. V*, 256.
- feed, *Rec. IV*, 174; *XII*, 282.
- fodder, *Rec. II*, 667; *IV*, 475; *XI*, 882; *XII*, 378.
- green, *Rec. IV*, 475; *XII*, 378.
- ground, *Rec. IV*, 64, 176; *V*, 194, 631.
- hay, *Rec. II*, 243, 667; *VIII*, 714.
- meal, *Rec. II*, 579; *IV*, 569; *VII*, 336; *XII*, 281.
- meal, malted, *Rec. XII*, 877.
- Norwegian, *Rec. XII*, 233.
- pearl, *Rec. IV*, 59.
- refuse, *Rec. VI*, 331.
- rolled, *Rec. XII*, 981.
- Russian, *Rec. V*, 256, 626; *VII*, 491.
- scorched, *Rec. VI*, 931.
- screenings, *Rec. I*, 15.
- silage, *Rec. X*, 276.
- sprouts, *Rec. XII*, 282, 378.
- straw, *Rec. III*, 159; *V*, 631; *VI*, 1008.
- wild, *Rec. XII*, 471.

(*See also* BARLEY, COMPOSITION.)

and corn *v.* molasses feed for pigs, *Rec. XI*, 69

malt for sheep, *Rec. IV*, 609.

oats *v.* corn for cows, *Rec. XI*, 780.

oats *v.* wheat for cows, *Rec. VIII*, 256.

pea fodder, *Rec. V*, 596, *XI*, 882.

pea fodder, digestibility, *Rec. XI*, 874.

and peas—

analyses, *Rec. X*, 474; *XI*, 777.

for soiling, *Rec. IV*, 29, 480.

and wheat—

for sheep, *Rec. VIII*, 250.

v. wheat for pigs, *Rec. VII*, 609.

as an adulterant of flour, *Rec. XI*, 482.

Austrian, varieties, *Rec. V*, 1029.

Bavarian, quality, *Rec. XII*, 233.

Barley—Continued.

- beards, functions, *Rec. VI*, 873.
- blighted, notes, *Rec. II*, 213.
- breeding, *Rec. V*, 808; *VII*, 274; *X*, 146; *XI*, 144; *XII*, 233.
- brewing. (*See BARLEY, MALTING.*)
- calendar, *Rec. V*, 717.
- California, culture experiments, *Rec. XI*, 339.
- carbohydrates in, *Rec. IV*, 612; *V*, 648; *X*, 79.
- characteristics of young plants, *Rec. XII*, 442.
- color—
 - as affected by time of cutting, *Rec. VII*, 295.
 - a guide in purchasing, *Rec. VIII*, 490.
- composition—
 - as affected by fertilizers, *Rec. V*, 1098; *VI*, 25.
 - affected by nitrogenous manures, *Rec. III*, 750.
 - at different stages, *Rec. V*, 1098; *VI*, 715.
- continuous cropping with, *Rec. III*, 186.
- cultivation, *Rec. II*, 521.
- culture, *Rec. VI*, 722; *VIII*, 124, 401, 490; *XI*, 642, 841.
- culture—
 - experiments, *Bul. 2, I*, 64, 190; *Rec. I*, 19; *II*, 82, 271, 392, 395, 520, 580, 597, 635, 642, 663, 675; *III*, 85, 159, 786; *IV*, 346, 825; *V*, 1073; *VI*, 296, 632; *VII*, 122, 380, 496, 497, 954; *VIII*, 308, 400, 588; *X*, 43; *XII*, 233, 535, 941, 1036, 1037, 1039.
 - experiments, cooperative, *Rec. III*, 821.
 - in Denmark, *Rec. IX*, 941; *XII*, 233.
 - Norway, *Rec. XII*, 233.
 - Ontario, *Rec. III*, 132.
 - Schleswig-Holstein, *Rec. VI*, 541.
- Danish *v.* Russian, for pigs, *Rec. VII*, 245.
- development and transpiration, *Rec. VIII*, 954.
- diastase of, *Rec. VII*, 927; *X*, 314.
- digestibility, *Rec. IV*, 734.
- digestibility of—
 - bran, *Rec. IX*, 476.
 - fodder, *Rec. VIII*, 423; *XI*, 874.
 - meal, *Rec. II*, 460.
- effect—
 - of fertilizers on, *Bul. 2, II*, 83; *Rec. II*, 610, 636; *III*, 921; *IX*, 436, 741, 1027; *XII*, 43.
 - harvesting conditions on, *Rec. V*, 716.
 - iron on, *Rec. V*, 1094.
 - kainit on, *Rec. X*, 536.
 - lime on, *Rec. IX*, 937.
 - phosphoric acid on, *Rec. X*, 245.
 - previous crop of roots, *Rec. XII*, 1037.
 - various conditions, *Rec. XII*, 1026.
 - on butter, *Rec. V*, 724.
 - milk, *Rec. V*, 969.
- enzym in, *Rec. IX*, 120, 624, 628; *XII*, 722, 916.
- ferment, *Rec. X*, 1015.
- fertilizers for, *Rec. I*, 80; *III*, 186, 393, 599; *IV*, 108, 132, 145, 614, 647, 861, 875, 965; *V*, 702, 704, 708, 712, 852; *VI*, 25, 293, 400, 418, 542, 891, 893; *VII*, 209, 397, 579; *VIII*, 210, 490; *IX*, 235, 644, 830, 1047; *X*, 244, 348, 535, 835, 836, 954; *XI*, 39, 531, 539, 643, 833, 842; *XII*, 43, 44, 131, 133, 532, 536, 621, 633, 839, 934.
- field experiments, *Bul. 2, II*, 44, 57, 83, 123.

Barley—Continued.

- for calves, *Rec. III*, 221.
- cows, *Rec. VI*, 160; *VII*, 256; *XI*, 780.
- forage, *Rec. III*, 376; *VII*, 299; *XII*, 442.
- hay, *Rec. V*, 577, 578; *VI*, 808; *X*, 245.
- horses, *Rec. V*, 626; *VIII*, 822; *XI*, 442.
- pigs, *Rec. II*, 427, 438, 439, 578; *III*, 130, 222; *IV*, 421, 423; *V*, 200, 429, 809; *VI*, 77, 465, 466; *VII*, 243, 244, 523, 609; *VIII*, 519; *IX*, 971; *X*, 74, 177; *XI*, 177, 879; *XII*, 588.
- sheep, *Rec. IV*, 609; *VIII*, 250; *IX*, 972.
- steers, *Rec. III*, 129; *X*, 671.
- winter soiling, *Rec. II*, 271.
- formation of starch and sugar in, *Rec. IX*, 329; *X*, 223, 417.
- from imported seed, *Rec. II*, 520.
- frozen, as a feeding stuff, *Rec. VI*, 452.
- fungus diseases, *Rec. IV*, 592; *VI*, 647; *IX*, 660; *X*, 456.
- germinated, microscopical study of grains, *Rec. VIII*, 290.
- germination, *Rec. X*, 417; *XI*, 1054.
- germination, as affected by—
 - formaldehyde, *Rec. XII*, 457.
 - frost, *Rec. I*, 19.
 - light, *Rec. VII*, 372.
 - rolling, *Rec. IV*, 121.
 - soaking and drying, *Rec. VIII*, 795.
 - temperature, *Rec. XI*, 156.
- germination—
 - formation of saccharose during, *Rec. V*, 728.
 - temperatures for, *Rec. XI*, 1056.
 - tests, *Bul. 2, I*, 30; *Rec. I*, 295; *II*, 521; *V*, 628, 910; *XI*, 857; *XII*, 585.
 - variation in sugar compounds during, *Rec. VI*, 869.
 - with restricted moisture, *Rec. VIII*, 863.
- grass, notes, *Rec. III*, 598.
- green manuring for, *Rec. V*, 701; *VI*, 541; *IX*, 134.
- gypsum for, *Rec. III*, 262.
- Hanna, variations, *Rec. V*, 924.
- harvest and sale, *Rec. XII*, 233.
- harvesting, *Rec. II*, 30.
- improvement, *Rec. X*, 147; *XII*, 233.
- injuries by hail, *Rec. X*, 847.
- injury to grain by thrashing, *Rec. XII*, 42.
- insects affecting, *Rec. VIII*, 507.
- iron in, *Rec. IV*, 301.
- irrigation, *Rec. V*, 691; *VII*, 496; *X*, 746.
- kennel, genetic development, *Rec. III*, 927.
- leaf disease, yellow, *Rec. IV*, 114.
- leaf hopper, *Rec. II*, 50.
- leaf spot, *Rec. VIII*, 239.
- limit of tolerance of sodium perchlorate, *Rec. XI*, 917.
- malt—
 - carbohydrates in, *Rec. IV*, 612; *X*, 79.
 - extract yielded, *Rec. II*, 4, 6, 7, 82.
 - investigations, *Rec. X*, 1017.
 - phosphoric acid, *Rec. VIII*, 330.
- malting, *Rec. V*, 716; *VII*, 72, 496, 764, 954; *IX*, 133, 893, 1047; *X*, 348.
- malting—
 - color, *Rec. IV*, 222.
 - culture, *Rec. IV*, 614; *VIII*, 401, 490; *X*, 348.
 - essential properties, *Rec. IX*, 643.

Barley—Continued.

malting—continued.

- Norwegian, Rec. XII, 196.
- production, Rec. XI, 240, 539, 643.
- quality as affected by manuring, Rec. IX, 436.
- Russian, Rec. V, 256.
- selection, Rec. IV, 436.
- value, Rec. VI, 27, 418, 634; VII, 209.
- winter, Rec. IX, 551.

(See also MALT.)

meal—

- for cows, Rec. VI, 160.
- pigs, Rec. IV, 423; V, 200.
- v. corn meal for pigs, Rec. XI, 72.
- with linseed meal for pigs, Rec. IV, 423.

mummy, studies, Rec. XII, 825.

Nepaul, culture experiments, Rec. X, 245.

nitrogen—

- assimilation by, Rec. V, 616.
- assimilation, organic, Rec. X, 723.
- requirement, Rec. VIII, 780.

nitrogenous fertilizers for, Rec. III, 921; V, 852; VIII, 688.

nonassimilation of free nitrogen, Rec. VII, 372.

notes, Rec. XII, 945.

nutritive solution for sand cultures, Rec. V, 773.

of Tunis and Russia, Rec. X, 432.

pearl, analyses, Rec. IV, 59.

pentosans, Rec. X, 412.

phosphoric acid in, Rec. VIII, 330.

plant, chemistry, Rec. VII, 468, 757.

pot experiments, Rec. VI, 520; XII, 1028.

prevention of sprouting, Rec. IX, 347.

production—

- and distribution, Rec. IV, 845.
- in Germany, 1892, Rec. IV, 985.
- Hungary, 1899, Rec. XI, 689.
- statistics, Rec. V, 328, 612.

proteids of, Rec. VII, 231.

protein content as affected by time of seeding, Rec. IV, 783.

root development, Rec. V, 482.

rotation experiments, Rec. V, 713; XI, 842; XII, 133.

Russian—

- and Danish, Rec. V, 625.
- for horses, Rec. V, 626.

rust—

- black stem, Rec. XI, 943.
- notes, Rec. II, 213; IV, 414.
- yellow, Rec. XI, 259.

seed—

- distribution, Rec. IV, 436.
- imported, Rec. II, 520.
- preparation, Rec. VII, 31.
- selection, Rec. IV, 436; V, 623, 719; X, 240; XI, 630; XII, 340.
- variation, Rec. VIII, 117.
- water absorption of, Rec. XI, 1056.

seeding, Rec. II, 521; XII, 633.

seeding—

- at different dates, Rec. II, 520; V, 623; VII, 116, 119, 398; IX, 830, 833; X, 836, 846.
- different depths, Rec. VII, 119, 398.
- different rates, Rec. V, 718.
- d illing v. broadcasting, Rec. V, 679, 717; VI, 417, 419; IX, 830; X, 238; XI, 628.

Barley—Continued.

size of grain as affected by climate, Rec. XII, 737.

smut—

- covered, studies, Rec. XII, 356.
- loose, studies, Rec. II, 342; XI, 314; XII, 356.
- new, Rec. VI, 738.
- notes, Rec. II, 342, 581; IV, 50; VI, 147.
- prevention, Rec. X, 156, 453.
- treatment, Rec. VI, 310, 647, 832; VII, 787, 789; VIII, 240, 606; IX, 62, 145, 252, 363, 830; X, 156, 633, 740.

soil preparation, Rec. V, 39; VI, 540.

straw—

- as litter, Rec. V, 144.
- carbohydrates, Rec. IX, 419.

surface v. subwatering, Rec. XII, 325.

two-rowed—

- varieties, Rec. II, 260.
- v. six-rowed, Rec. II, 675.

value of crop in Canada, Rec. II, 260.

variation, Rec. VII, 31; X, 147.

varieties, Bul. 2, II, 44, 57, 123; Rec. I, 69, 87, 143; II, 4, 6, 7, 29, 83, 132, 171, 213, 260, 395, 520, 597, 649, 663, 675; III, 82, 85, 128, 356, 360, 361, 453, 599, 625, 703, 743, 802, 835; IV, 411, 436, 590, 824; V, 51, 178, 332, 577, 623, 625, 679, 712, 794, 870, 924, 1029, 1073, 1074; VI, 44, 293, 415, 416, 417, 418, 419, 541, 543, 635, 807, 809, 898, 984; VII, 120, 121, 209, 210, 396, 496, 579, 580, 581, 670, 859; VIII, 223, 490, 687, 689, 971, 972; IX, 131, 440, 741, 826, 829, 830, 832, 853, 941; X, 238, 340, 348, 535, 537, 634, 836, 846, 1034; XI, 332, 628, 834, 842; XII, 42, 44, 134, 229, 328, 532, 629, 630, 849, 1037, 1039.

varieties—

- classification, Rec. V, 1029; XI, 44.
- English, French, and German, comparison, Rec. II, 675.
- hybrid, notes, Rec. XII, 339.
- identical, Bul. 2, I, 30.

vitality, Rec. XI, 158; XII, 565.

v. bran and shorts for steers, Rec. X, 671.

corn for pigs, Rec. IV, 421; VII, 244, 523; IX, 971; XI, 177.

mangel-wurzels and carrots for pigs, Rec. VII, 243.

mixtures of barley, wheat, and peas for pigs, Rec. X, 177.

oats for horses, Rec. VIII, 822; XI, 80.

oil cakes for pigs, Rec. VII, 243.

wheat for pigs, Rec. XI, 69.

wheat, profit in growing, Rec. VII, 298.

wheat bran for pigs, Rec. V, 429.

water required for 1 pound, Rec. IV, 126; V, 484.

weight of grain as related to nitrogen content, Rec. XI, 633; XII, 326.

wild, notes, Rec. IV, 699; V, 306.

winter—

- cultural experiments, Rec. XI, 442.
- culture, Rec. X, 348, 349.
- Groninger, Rec. XI, 539.
- notes, Rec. XII, 1036.
- varieties, Rec. XII, 935.

yield—

- and value, Rec. II, 638.
- as affected by rolling, Rec. IV, 121.

Barley—Continued.

yield—continued.

in Great Britain, *Rec. III*, 835.in the United States, *Rec. III*, 326.of dry matter, *Rec. V*, 482.per acre, *Rec. II*, 29, 271, 521, 636, 675; *III*, 394; *IV*, 431.

Barn—

for cattle feeding, *Rec. XI*, 295.sheep, construction, *Rec. IV*, 196.with framework of steel, *Rec. XI*, 294.wooden hillside, description, *Rec. XII*, 695.Barn owl, notes, *Rec. VI*, 695; *X*, 521.Barnes's Horse and Stock Feed, analyses, *Rec. XII*, 70.

Barns—

and silos, relative cost, *Rec. I*, 249.at Massachusetts Agricultural College, *Rec. VI*, 674.construction, *Rec. III*, 132.cost, *Rec. IX*, 597.

dairy—

construction and ventilation, *Rec. IV*, 180; *VI*, 1029.description, *Rec. II*, 447; *IX*, 1083; *XI*, 595; *XII*, 396.enlarging and arranging, *Rec. VIII*, 92.temperature, inside and outside, *Rec. IX*, 998.tobacco, construction, *Rec. IV*, 723; *XI*, 726.

Barnyard—

fowls, *Rec. VI*, 931.

grass—

analyses, *Bul. 2*, I, 108; *Rec. V*, 64; *VI*, 403; *VIII*, 331.as a food plant of oak weevil, *Rec. IV*, 437.beardless, notes, *Rec. X*, 343.culture experiments, *Rec. VIII*, 401; *X*, 244.new smut, *Rec. VIII*, 141.notes, *Rec. IV*, 699; *V*, 911; *VI*, 715; *VII*, 121, 384; *VIII*, 306; *X*, 244, 343, 629.root system, *Rec. IV*, 46.silage, analyses, *Rec. VI*, 331.Barnyard manure— (*See also* MANURE.)analyses, *Bul. 2*, II, 13, 43; *Rec. II*, 233, 481, 514; 581, 582; *III*, 9, 89, 146; *V*, 141, 152, 153, 390, 596, 634; *VI*, 287; *VII*, 292, 294; *VIII*, 485, 767; *X*, 428, 623, 1033; *XI*, 438; *XII*, 933.analyses, methods, *Rec. VIII*, 952and denitrification, *Rec. X*, 235; *XII*, 734.fertilizers, *Rec. VI*, 134; *IX*, 339, 824.fertilizers in rotation, *Rec. VIII*, 885.application, *Rec. I*, 127; *V*, 34.application, spring *v.* fall, *Rec. IV*, 132.ash analyses, *Rec. XI*, 277.availability, *Rec. V*, 651; *XI*, 134.bacteria in, *Rec. VI*, 969; *VII*, 279, 292; *IX*, 824; *XI*, 39, 331; *X*, 533.cheap shelter for, *Rec. III*, 91.composition and effectiveness, *Rec. VII*, 292.concentrated, *Rec. V*, 346.

effect—

on potato scab, *Rec. III*, 772; *V*, 590.rotation of crops, *Bul. 2*, I, 121.soil water, *Rec. IV*, 124, 125; *V*, 483; *VII*, 566.soils and roots, *Rec. V*, 141.experiments, *Rec. VIII*, 682; *XII*, 320.

Barnyard manure—Continued.

fermentation, *Rec. III*, 736; *IV*, 614; *V*, 35, 146, 147, 149; *IX*, 36.for barley, *Rec. VI*, 891.beets, *Rec. XI*, 725.corn, *Rec. I*, 33, 62; *II*, 473; *III*, 529, 785, 867; *IV*, 251, 809; *V*, 292, 1071; *VI*, 135;*VII*, 163; *IX*, 340.cotton, *Rec. II*, 553, 628, 656; *V*, 174, 332.crops in rotation, *Rec. III*, 889.grasses and pasture lands, *Rec. V*, 707, 710.mangel-wurzels, *Rec. III*, 887; *V*, 705, 713, 933.mulching, *Rec. V*, 584.oats, *Rec. IV*, 133; *V*, 579; *VII*, 117.peach trees, *Rec. IV*, 40; *V*, 397.potatoes, *Rec. II*, 26, 51, 325, 596, 670; *III*, 32, 529, 874; *IV*, 818; *V*, 393, 702, 708, 715, 933; *VIII*, 400.ruta-bagas, *Rec. V*, 706, 713, 933; *VI*, 891.sweet potatoes, *Rec. V*, 394, 865.tobacco, *Rec. II*, 457; *IV*, 821; *V*, 392; *IX*, 546.tomatoes, *Rec. II*, 367; *V*, 393.turnips, *IX*, 44.wheat, *Rec. II*, 220; *III*, 510; *V*, 34, 186, 332, 705, 867; *VI*, 891.white mustard, *VII*, 292.French investigations, *Rec. V*, 139.gas, analyses, *Rec. V*, 147; *XII*, 623.in moor culture, *Rec. VII*, 198.

loss—

by leaching and fermentation, *Bul. 2*, II, 12; *Rec. I*, 279; *VIII*, 880.from exposure, *Rec. III*, 90; *V*, 35, 154; *VI*, 797, 979.in keeping, *Rec. II*, 364.of nitrogen in, *Rec. I*, 138; *VI*, 400, 629; *VII*, 198, 292, 490, 755; *VIII*, 760, 873; *X*, 731; *XI*, 828.losses in loose and compact, *Rec. V*, 330.management and preservation, *Bul. 2*, II, 12, 84; *Rec. II*, 192; *III*, 89, 655, 821; *IV*, 222, 231, 452, 985; *V*, 139, 153, 155, 255, 329, 346, 436, 548, 621, 651, 820, 1098; *VI*, 128, 129, 201, 287, 521, 631, 798; *VII*, 25, 292, 490, 756, 853; *VIII*, 391, 485, 840, 872, 880; *IX*, 36, 435, 738, 740, 822, 1043; *X*, 133, 134, 135, 734; *XI*, 135, 137, 229, 331, 726, 827, 828, 829; *XII*, 38, 534.nature, care, and use, *Rec. VI*, 521.nitrogen in, *Rec. V*, 141, 152; *VI*, 713; *IX*, 825.notes, *Rec. IV*, 248; *XI*, 397; *XII*, 324.phosphatic slag and nitrate of soda as supplements, *Rec. XII*, 429.pits, construction, *Rec. XI*, 830.production, *Rec. V*, 387; *VI*, 630; *IX*, 236 *X*, 426.production and care, *Rec. III*, 89.reactions in, *Rec. V*, 148.relative value of nitrogen, *Rec. XI*, 43.residual effect, *Rec. V*, 158; *VI*, 140.residual effect on corn, *Rec. VII*, 113.soil improvement with, *Rec. V*, 730.solid *v.* liquid, *Rec. V*, 35.sources, *Rec. I*, 229.storage, *Rec. VI*, 287.studies, *Rec. X*, 734, 1033.use, *Rec. III*, 148.

Barnyard manure—Continued.

use—

and value, *Rec. V*, 34, 139, 155, 621.history of, *Rec. V*, 141.utilization, *Rec. VI*, 133, 287, 521, 631, 797, 882; *XI*, 1025; *XII*, 534.

value—

as a fertilizer, *Bul. 2*, *II*, 84; *Rec. VI*, 123, 798; *VII*, 198, 571; *VIII*, 761, 873, 969; *IX*, 799; *X*, 35.from different feeding stuffs, *Rec. I*, 222.

v. commercial fertilizers—

for corn, *Rec. I*, 33, 62.oats, *Rec. IV*, 131.wheat, *Rec. III*, 510; *V*, 186.cotton-seed products, *Rec. XI*, 233.fertilizers, *Rec. I*, 128; *II*, 18, 19, 26, 327; *VII*, 573, 670; *IX*, 36; *X*, 27.green manure, *Rec. V*, 140, 436; *VI*, 27, 396, 798.green manuring for white mustard, *Rec. VII*, 292.muck for potatoes, *Rec. II*, 596.muriate of potash for potatoes, *Rec. VIII*, 400.nitrate of soda, *Rec. VII*, 25.

poudrette—

for barley, *Rec. VI*, 891.ruta-bagas, *Rec. VI*, 891.wheat, *Rec. VI*, 891.seaweed, *Rec. X*, 934.street sweepings, *Rec. XI*, 625.superphosphate and slag for turnips, *Rec. IX*, 44.with and without muriate of potash for corn, *Rec. III*, 867; *V*, 292.Barogram near hurricane center, *Rec. VIII*, 675.

Barographs—

aneroid, use, *Rec. IX*, 630.on ships, *Rec. X*, 1018; *XI*, 222; *XII*, 25.

Barometer—

aneroid, *Rec. X*, 419, 827, 1018.camphor, *Rec. XI*, 430.diurnal variation, *Rec. XI*, 620.for balloon voyages, *Rec. XII*, 1016.prediction of night frosts, *Rec. VII*, 475.high and low, *Rec. IX*, 531.history, *Rec. XI*, 819.method of filling, *Rec. VIII*, 676.new form, *Rec. VI*, 789.reduction to standard gravity, *Rec. XII*, 1016.substitute for, *Rec. VII*, 845.temperature corrections, *Rec. VII*, 475.

Barometric—

corrections and reductions, *Rec. XI*, 819.observations at sea, *Rec. V*, 1087.

pressure—

diurnal variation, *Rec. IV*, 580.factors affecting, *Rec. VII*, 475.reduction to sea level, *Rec. VIII*, 207.readings, conversion, *Rec. X*, 419.Barometry, plateau, *Rec. XI*, 621.Barred owl, notes, *Rec. VI*, 695.*Baryssinus leguminicola*, n. sp., *Rec. VIII*, 417.*Bascanon flagellum frenatum*, n. sp., notes, *Rec. V*, 90.Basic phosphate of lime and potash, analyses, *Rec. VIII*, 880.Basic slag. (*See* PHOSPHATIC SLAG.)*Basidiobolus ranorum*, nuclear division and fruiting, *Rec. VIII*, 957.

Basidiomycetes—

affinities, *Rec. V*, 648.classification, *Rec. V*, 648.nuclear division, *Rec. X*, 321.origin, *Rec. XII*, 314.sexual reproduction, *Rec. VII*, 371.Basket osiers, experiment with, *Rec. III*, 45.Basket worm. (*See* BAGWORMS.)Baskets v. boxes for gardeners, *Bul. 2*, *II*, 90.*Bassareus mammifer*, notes, *Rec. IV*, 839.*Bassus sycophanta*, notes, *Rec. IV*, 417.Basswood. (*See* LINDEN, AMERICAN.)Bast fibers of the United States, *Rec. VI*, 207.

Bat—

brown, distribution and use, *Rec. X*, 25.Carolina, distribution and use, *Rec. X*, 25.guano, analyses, *Rec. I*, 198; *II*, 142, 275; *III*, 6, 146, 764; *V*, 165, 737; *X*, 337, 1031, 1034; *XI*, 438, 719; *XII*, 39, 933.guano, ash analyses, *Rec. VII*, 366.hoary, distribution and use, *Rec. X*, 25.manure, analyses, *Rec. V*, 575, 861; *VI*, 401.red, distribution and use, *Rec. X*, 25.silvery, distribution and use, *Rec. X*, 25.*Batatas edulis*, analyses, *Rec. XII*, 1076.(*See also* SWEET POTATO.)Bathurst bur, notes, *Rec. V*, 263; *VII*, 38.*Batocera hector*, notes, *Rec. VIII*, 807.*Batrachedra rileyi*, notes, *Rec. IX*, 370.Batrachians of Death Valley, California, *Rec. V*, 90.Bats of North America, *Rec. IX*, 924.Baum's Horse and Stock Food, analyses, *Rec. XI*, 279.Baume's hydrometer, *Rec. XI*, 22.Beach grass, notes, *Rec. VI*, 415; *XI*, 423.

Bean—

and watermelon anthracnose, identity, *Rec. VI*, 824.

anthracnose—

artificial culture, *Rec. VII*, 225.fungicides for, *Rec. IV*, 558; *VI*, 996.notes, *Rec. IV*, 52, 400, 557; *VI*, 234, 558, 735.studies, *Rec. X*, 451; *XI*, 254.treatment, *Rec. I*, 168; *IV*, 52, 400, 558; *V*, 629; *VI*, 996; *VIII*, 894; *IX*, 251, 655, 1061; *X*, 861; *XII*, 574.aphis, notes, *Rec. VI*, 316.bacterial disease, *Rec. V*, 400; *IX*, 665; *XI*, 948; *XII*, 359.bacteriosis, treatment, *Rec. XI*, 751.

beetle—

notes, *Rec. XI*, 562.spotted, notes, *Rec. IV*, 58; *V*, 328.blight, *Rec. IV*, 55, 559; *X*, 446; 1051.bug, New Mexican, remedies, *Rec. IX*, 446.canker, notes, *Rec. X*, 155.diseases, notes, *Rec. IV*, 557; *VI*, 59.fly, notes, *Rec. VIII*, 146.fodder crops, *Rec. XI*, 632.ladybird, natural enemies, *Rec. XI*, 470.

Bean—Continued.

- leaf beetle—
 - notes, Rec. II, 342; XII, 362.
 - remedies, Rec. X, 64; XI, 471.
- leaf roller—
 - notes, Rec. X, 660.
 - remedies, Rec. X, 658.
- leaf spot, treatment, Rec. IV, 55.
- meal—
 - analyses, Rec. XII, 981.
 - digestibility, Rec. II, 459.
 - for cows, Rec. VI, 160.
- mildew, notes, Rec. X, 1050.
- pod spot—
 - notes, Rec. X, 446.
 - treatment, Rec. XI, 751.
- pod, blackening, Rec. XI, 511.
- root louse, Rec. VII, 877.
- rust, notes, Rec. IV, 559; VI, 234.
- snap, varieties, Rec. VII, 124.
- straw, stalks and pods, analyses, Rec. VIII, 623.
- tingitid, notes, Rec. XII, 362.
- tree—
 - notes, Rec. I, 212.
 - prolific, analysis, Rec. II, 329.
- weevil—
 - common, notes, Rec. IX, 854.
 - four-spotted, notes, Rec. V, 410; VI, 438; VII, 43; VIII, 610.
 - heat as a remedy, Bul. 2, II, 119.
 - life history, Rec. IV, 82.
 - Mexican, notes, Rec. XII, 363.
 - new, notes, Rec. VI, 438.
 - nomenclature, Rec. IV, 373.
 - notes, Bul. 2, II, 118; Rec. II, 342, 654, 659; III, 792; V, 410; VI, 65, 438, 740; VII, 43; VIII, 68, 610; IX, 66, 670, 854; XI, 167, 470, 863.
 - oviposition, Rec. IV, 373, 666.
 - parasites, Rec. X, 571.
 - remedies, Rec. XI, 169.

Beans—

- acclimatization, Rec. VII, 217.
- Adzuki—
 - analyses, Rec. III, 869.
 - culture experiments, Rec. IV, 154.
- analyses, Rec. III, 375, 387, 395, 532; V, 431; IX, 479, 538, 552, 754; XI, 737; XII, 79.
- and hay, digestibility, Rec. IV, 975.
- as affected by—
 - anesthetics, Rec. XI, 1056.
 - atmospheric electricity, Rec. VI, 537.
- as an adulterant of flour, Rec. XI, 482.
- assimilation of ammonia by, Rec. V, 225.
- black Mauritius, Rec. X, 348.
- Bonavis, analyses, Rec. IX, 129; XI, 249.
- broad, culture, Rec. VII, 584.
- bush—
 - field experiments, Rec. XI, 1099.
- Lima, Rec. VI, 727.
- susceptibility to blight, Rec. X, 1051.
- varieties, Rec. I, 184; II, 669; III, 609; V, 53; VI, 548, 727; VII, 213, 302, 405; VIII, 790, 977; IX, 351; X, 47, 849; XI, 250.
- canned, analyses, Rec. V, 220.

Beans—Continued.

- castor, culture, Rec. VIII, 700.
- culture, Rec. VII, 217, 584, 867; IX, 357.
- culture—
 - experiments, Rec. III, 395; VI, 807; VIII, 407, 790; XII, 229.
 - in California, Rec. VII, 504.
- Daidzu, culture experiments, Rec. II, 24.
- double cropping with sweet corn, Rec. XI, 737.
- dried, analyses, Rec. IV, 59.
- English, notes, Rec. V, 577.
- extent of variation within the variety, Rec. XI, 737.
- fertilizers for, Bul. 2, I, 94; Rec. III, 387, 392, 532; IV, 253; V, 291; VI, 400; VII, 307, 581; VIII, 406; IX, 44, 51; XI, 737; XII, 623.
- fertilizers for—
 - crude phosphates for, Rec. IV, 131.
 - experiments in Italy, Rec. V, 1029.
 - formula, Rec. XII, 851.
- field—
 - as green manure for wheat, Rec. IV, 208.
 - nutritive value, Rec. XI, 73.
 - varieties, Rec. VI, 548.
- food value, Rec. X, 74; XII, 876.
- forcing, Rec. II, 507; VII, 504, 687; VIII, 600; XII, 952.
- French—
 - food value, Rec. X, 582.
 - notes, Rec. VII, 954; XII, 936.
- frost resistance, Rec. XII, 944.
- germination—
 - as affected by nitrate of soda, Rec. X, 849.
 - temperatures for, Rec. XI, 1056.
 - tests, Bul. 2, I, 30; Rec. II, 317; V, 628.
- grafting peas on, Rec. V, 1089.
- hay, oats, and wheat straw, digestibility, Rec. IV, 976.
- horse, germination as affected by light, Rec. XII, 1049.
- injury by *Cerotoma caminea*, Rec. IV, 667.
- insects affecting, Rec. II, 342; VII, 699; VIII, 147.
- irrigation, Rec. VIII, 894.
- Japanese—
 - culture experiments, Rec. IV, 154; VI, 35.
 - nitrogen, Rec. V, 779.
 - varieties, Rec. III, 869.
- kidney—
 - analyses, Rec. XII, 234.
 - Chevrier, management, Rec. XI, 744.
 - fermentation, Rec. X, 155.
 - forcing, Rec. XII, 1043.
 - grafting, Rec. V, 1089.
 - proteids, Rec. V, 1080; VI, 163, 376.
- Lima. (See LIMA BEANS.)
- Mandura, analyses, Rec. XI, 249.
- Mesquite. (See MESQUITE BEAN.)
- Metcalf, notes, Rec. X, 542; XII, 332.
- Mexican, notes, Rec. V, 1074.
- new, notes, Rec. V, 1099.
- nitrogen, phosphoric acid and potash content, Rec. IX, 552.
- notes, Rec. V, 790, 871, 877; VI, 722; X, 547; XI, 1047.

Beans—Continued.

- on soil treated with carbon bisulphid, Rec. VII, 32.
- origin, Rec. VIII, 407.
- perennial—
 - culture experiments, Rec. VIII, 700.
 - notes, Rec. VII, 31; X, 254.
- planting—
 - at different depths, Rec. XII, 352.
 - hill *v.* drill, Rec. IX, 946.
 - large *v.* small seed, Rec. XII, 441.
- pole—
 - forcing, Rec. XI, 147, 599.
 - varieties, Rec. II, 669; III, 609; V, 53; VIII, 977; X, 849; XI, 250.
- seed—
 - selection, Rec. II, 599.
 - water absorption of, Rec. IX, 1056.
- shading, Rec. XI, 739.
- snap, culture experiments, Rec. IX, 244.
- soy. (*See SOY BEANS.*)
- spraying experiments, Rec. XI, 751; XII, 352.
- string—
 - analyses, Rec. IV, 59.
 - culture, Rec. XI, 250.
 - notes, Rec. XI, 850.
 - preservation, Rec. XII, 952.
- studies, Rec. XII, 976.
- thickness of sowing, Rec. XI, 737.
- vanilla, in Mexico, Rec. VI, 545; XI, 153.
- varieties, Bul. 2, I, 33, 67; Bul. 2, II, 115, 135; Rec. I, 84, 254; II, 24, 29, 318, 342, 349, 392, 395, 556, 566, 580, 582, 598, 599, 607, 641, 669; III, 19, 30, 85, 361, 387, 395, 402, 470, 479, 532, 609, 724, 781, 792; IV, 253, 352, 650, 828; V, 189, 982, 983, 1074; VI, 44, 52, 55, 56, 142, 218, 416, 418, 727; VII, 35, 124, 125, 213, 302, 405, 671, 685; VIII, 225, 231, 495, 790, 791, 888, 889, 971, 977; IX, 131, 244, 946; X, 240; XI, 51, 629, 632, 737; XII, 229.
- velvet. (*See VELVET BEAN.*)
- water requirements, Rec. XII, 340.
- white dwarf navy, notes, Rec. VI, 212.
- wild, notes, Rec. X, 147.
- yield in Great Britain, Rec. III, 835.
- earberry, notes, Rec. III, 522.
- Beard grass—
 - analyses, Rec. V, 64.
 - Indian, notes, Rec. IV, 248; VI, 93.
 - purple, analyses, Rec. VI, 403.
 - twisted, analyses, Rec. V, 64.
- Beards on cereal grasses, structure and function, Rec. X, 612.
- Beard's tongue, notes, Rec. III, 616.
- Beckmannia cruxiformis uniflora*, notes, Rec. VI, 403.
- Beck's serum for swine diseases, Rec. XI, 290.
- Bed *v.* level culture, Rec. X, 1021.
- Bedbug, stridulating organ, Rec. IX, 1070.
- Bedbugs—
 - and red ants, Rec. VI, 440.
 - notes, Rec. IX, 251.
 - remedies, Rec. VIII, 68; IX, 63.
- Bedding—
 - excelsior and straw for, Rec. VII, 579.
 - materials, tests, Rec. IV, 778.
 - ornamental, Rec. IX, 1054.
 - peat litter for, Rec. IX, 96.

Bee—

- brain of, Rec. IX, 159.
- cellar—
 - notes, Rec. IX, 857.
 - ventilation, Rec. VII, 517.
- depilation, notes, Rec. VI, 149.
- eating insects, Rec. VI, 838; XII, 830.
- escapes in extracting honey, Rec. IV, 417.
- fertilization of fruit and vegetables, Rec. VI, 566.
- fly, notes, Bul. 2, II, 93; Rec. VIII, 145.
- hawk moth, notes, Rec. XII, 465.
- keeping—
 - experiments, Rec. III, 532; IV, 205; V, 101; XI, 370.
 - in Cyprus, Rec. VII, 594.
 - Ontario, Rec. VI, 217, 419, 443.
 - Russia, Rec. VII, 315.
 - legality, Rec. I, 297.
 - migratory system, Rec. VIII, 613.
 - notes, Rec. I, 296; II, 295, 395, 423, 496; VII, 791; IX, 673, 770.
 - regulations, Rec. X, 167.
 - report on, Rec. IV, 254.
- moth—
 - notes, Rec. VI, 315; VIII, 906, 911; XII, 1067.
 - protection against, Rec. VIII, 613.
- plant, Rocky Mountain, Rec. II, 279, 496; III, 52.
- poison, studies, Rec. XII, 660.
- space in supers, Rec. IX, 674; X, 268.
- stings—
 - and rheumatism, Rec. V, 328.
 - studies, Rec. XII, 660.
- swarm, suspension, Rec. VIII, 1001.
- upholsterer, notes, Rec. IV, 838.
- (*See also BEES and APICULTURE.*)
- Beech—
 - American, notes, Rec. IV, 654; VII, 135.
 - and linden oil for table use, Rec. VI, 163.
 - ash constituents and nitrogen as affected by seed production, Rec. V, 256.
 - bud insect, Rec. X, 871.
 - buds, influence of light on forcing, Rec. VI, 279.
 - classification of species, Rec. VIII, 565.
 - effect of—
 - spring frosts on growth, Rec. IX, 756.
 - thinning, Rec. XI, 940.
 - European, notes, Rec. IV, 654.
 - grafting in open air, Rec. V, 1018.
 - history and culture, Rec. VII, 960.
 - leaf gall mite, Rec. VII, 793.
 - leaves—
 - ash analyses, Rec. XII, 1006.
 - composition, Rec. V, 916.
 - nut oil, Rec. VII, 719.
 - nuts—
 - as a feeding stuff, Rec. VIII, 924.
 - destruction by *Mucor mucedo*, Rec. IX, 362.
 - food value, Rec. XII, 78.
 - notes, Rec. VIII, 231.
 - ornamental varieties, Rec. IX, 862.
 - red—
 - fungus and insect enemies, Rec. X, 653.
 - in coppice and forests, Rec. X, 644.

Beech—Continued.

- red—continued.
 - insects affecting, Rec. VI, 237.
 - year ring formation, Rec. IX, 812.
- roots, sclerotid disease, Rec. XI, 1061; XII, 1054.
- rust, Rec. VII, 774.
- scale insect, Rec. VI, 65.
- tree, cultivation, Rec. VI, 730.
- twigs, analyses, Rec. III, 493.
- woolly louse, remedies, Rec. IX, 862.

Beef—

- analyses, Rec. X, 571; XII, 273.
 - and bone, boiled, analyses, Rec. XII, 877.
 - ash analysis, Rec. X, 572.
 - broth, composition and physiological effects, Rec. XII, 470.
 - carcasses, determination of age, Rec. XI, 279.
 - cattle. (*See* CATTLE, BEEF.)
 - composition as affected by breed, Rec. VII, 327.
 - cooked in different ways, food value, Rec. X, 662; XI, 672.
 - cracklings, ground—
 - analyses, Rec. XII, 587.
 - for poultry, Rec. XI, 279.
 - digestibility, Rec. X, 662; XII, 273.
 - extracts—
 - analyses, Rec. XII, 370.
 - methods of analysis, Rec. XII, 370.
 - fat—
 - analyses, Rec. VII, 708.
 - fuel value, Rec. III, 386.
 - in lard, detection, Rec. VII, 558, 652; VIII, 668.
 - lard, determination, Rec. V, 728.
 - feeding for. (*See* CATTLE, STEERS, etc.)
 - fresh, analyses, Rec. IV, 59.
 - from different breeds, Rec. II, 361.
 - herd, cost of wintering, Rec. XI, 1084; XII, 282.
 - infested with tænia, Rec. IX, 1078.
 - liver, copper in, Rec. II, 324.
 - marrow, analyses, Rec. IV, 59.
 - meal, analyses, Rec. XII, 378.
 - preserved, analyses, Rec. IV, 59.
 - production, Rec. X, 179.
 - production—
 - cost, Rec. II, 437; V, 240; VI, 320.
 - dried brewers' grains v. linseed meal for, Rec. IX, 166.
 - for cotton farmers, Rec. X, 1089.
 - in Kansas, Rec. IX, 983.
 - silage for, Rec. V, 632.
 - soy-bean silage for, Rec. V, 687.
 - quality as affected by foods, Rec. V, 241.
 - range, analyses, Rec. X, 573.
 - scraps, analyses, Rec. III, 764; VII, 111; VIII, 389; XI, 279; XII, 378, 587, 877.
 - steers v. heifers for, Rec. VI, 321; IX, 82.
 - tallow, effect of cotton-seed meal on, Rec. VI, 325.
 - tubercle bacilli in, demonstration, Rec. XI, 794.
 - v. mutton production, Rec. II, 437.
- Beefhives— (*See also* BEE KEEPING and BEES.)
- comparison, Rec. IX, 775.
 - construction, Rec. VII, 880; VIII, 1000.

Beehives—Continued.

- description, Rec. IX, 861; XI, 60, 172.
 - humidity during winter, Rec. IX, 1072.
 - improvements, Rec. I, 296.
 - ventilated, Rec. XI, 172.
- Beer—
- alcohol content, Rec. VII, 463.
 - analyses, Bul. 2, I, 173.
 - and hops, boric acid in, Rec. IV, 616.
 - wort, nitrogenous constituents, Rec. VI, 377.
- casks in India, insect damages, Rec. VI, 440.
- chemistry and physiology, Rec. VIII, 466.
 - clarification, Rec. VI, 377.
 - determination of acid in, Rec. IX, 918.
 - effect of saline constituents of water, Rec. VI, 377.
 - effect on nitrogen metabolism, Rec. IX, 163.
 - examination, application of physical methods, Rec. VI, 375.
 - ferments, influence of fluorin compounds, Rec. VI, 170.
 - fluorin content, Rec. VII, 462.
 - methods of analysis, Rec. V, 261, 371.
 - neutralization agents, Rec. VII, 461.
 - nitrogenous materials, Rec. VI, 377.
 - saccharin in, determination, Rec. VI, 867.
 - salicylic acid content, Rec. VII, 18; IX, 419.
 - turbid with yeast cells, examination, Rec. VI, 377.
 - wort, oxidation, Rec. VI, 251.
 - worts, amorphous compounds, Rec. VII, 72.
 - yeasts, Rec. VIII, 472.
 - yeasts—
 - effect on milk, Rec. IX, 687.
 - variation, Rec. X, 322.
- Beers, examination, Rec. XI, 970.
- Bees— (*See also* BEE and APICULTURE.)
- age of workers, Rec. VIII, 1001.
 - anatomical studies, Rec. XI, 765.
 - anatomy—
 - of salivary glands, Rec. VI, 443.
 - tongue, Rec. IX, 370.
 - and bee worms, Rec. VII, 581.
 - honey, Rec. VI, 64.
 - arrangement of frames and hives, Rec. XI, 870.
 - as affected by—
 - arsenites, Rec. IV, 867; VI, 651; VIII, 506.
 - (*See also* BEES, POISONING BY SPRAYING.)
 - temperature, Rec. XI, 271.
 - as pollen distributors, Rec. III, 811.
 - biology and anatomy, Rec. VI, 441.
 - breeding—
 - experiments, Rec. XI, 62.
 - for longer tongues, Rec. XI, 1062.
 - brood frames, Rec. IX, 674.
 - brood rearing—
 - artificial heat to promote, Rec. II, 660.
 - as affected by wintering, Rec. X, 267.
 - burrowing, notes, Rec. X, 469.
 - care in February, Rec. XII, 67.
 - Carniolan, experiments, Rec. II, 662; V, 101; XI, 652.
 - Caucasian, races, Rec. XII, 774.
 - classification of new genera, Rec. IX, 967; XI, 271.
 - collection of honey, Rec. IX, 769.

Bees—Continued.

- colonies—
 - division of, Rec. IX, 574.
 - doubling, Rec. II, 661.
- comb—
 - foundation, Rec. VIII, 901, 911, 997; IX, 469, 774, 857; X, 157, 267, 268.
 - foundation experiments, Rec. XI, 62, 864, 1062.
 - production, Rec. IX, 459.
- combs—
 - artificial *v.* natural for, Bul. 2, I, 35.
 - cutting in brood chamber, Rec. X, 267.
 - preservation of, Rec. X, 158.
- crossbreeding of Syrian and Carniolan, Rec. II, 496.
- crossing, Bul. 2, I, 100.
- cuckoo, notes, Rec. II, 496.
- dead brood, notes, Rec. XI, 271.
- desirable strains, Rec. VII, 315.
- determination of New Mexican, Rec. X, 660.
- disease, new, Rec. IX, 676.
- diseases, Rec. II, 110.
- drones—
 - notes, Rec. VII, 517.
 - parthenogenetic origin, Rec. XI, 657, 956.
- enemies, Rec. VII, 315.
- exhibit at World's Columbian Exposition, Rec. V, 900.
- feeding—
 - experiments, Bul. 2, I, 99; Rec. II, 296, 496; IV, 417; VII, 143; VIII, 997; IX, 460; XI, 61.
 - back honey, Rec. V, 103; VII, 966; VIII, 902; IX, 673.
 - for profit, Rec. X, 158.
 - of drones by workers, Rec. IV, 205, 417.
 - range of, Rec. IV, 83.
- fertilization of vanilla flowers by, Rec. VI, 195.
- five-banded Italian, Rec. IX, 856; XI, 271, 653.
- food plants, Rec. II, 279, 496; III, 52; IV, 417; V, 102; VI, 64; IX, 469, 770; X, 222, 867.
- for fertilizing plant blossoms, Rec. IV, 205.
- foul brood, Rec. II, 110, 662; VII, 966; VIII, 902; IX, 459, 469, 576, 677, 770.
- foul brood—
 - notes, Rec. II, 662; VIII, 147, 320, 416, 902; IX, 459, 469, 677; X, 267; XI, 266, 370, 870.
 - studies, Rec. XII, 966.
 - transmission by queens, Rec. X, 157.
 - treatment, Rec. II, 110; VII, 517; IX, 576, 677, 770; X, 159; XI, 61, 172.
- hearing, Rec. XI, 172.
- heredity in, Rec. V, 821.
- histolysis of adipose body, Rec. XII, 67.
- in Australia, Rec. XII, 1066.
- town, legislation against, Rec. IX, 471.
- injuring grapes, Rec. VIII, 601, 911; IX, 352; XI, 60.
- location of honey source, Rec. IX, 468.
- management, Rec. XI, 171, 271; XII, 575, 579.
- (See also BEE KEEPING.)
- marsh flowers for, Rec. XI, 1062.
- Mexican, new species, Rec. VIII, 711.

Bees—Continued.

- moving to fall pasture, Rec. IX, 460; X, 268; XI, 652.
- muscles of, Rec. VII, 517.
- new, of genus *Perdita*, Rec. VII, 146.
- nesting habits, Rec. VII, 699.
- nonswarming devices, Rec. IV, 851; IX, 862.
- notes, Rec. V, 793; XII, 867.
- of Borneo and the East, Rec. IX, 469.
- Europe, classification, Rec. IX, 469.
- paralysis, Rec. VI, 149; IX, 967, 1065; XI, 61, 271.
- parasites, Rec. IX, 776.
- parthenogenesis, Rec. VII, 146; XI, 956; XII, 973, 1066.
- poisoning by spraying, Rec. III, 812; IV, 205; VIII, 64; IX, 460.
- pollen, substitutes for, Rec. XII, 660.
- pollination of fruits, Rec. IV, 595; XII, 367.
- protection, Rec. III, 836; VII, 315.
- Punic, test, Rec. V, 102.
- queen—
 - histology of ovary, Rec. XII, 1066.
 - laying of a, Rec. VIII, 608.
 - notes, Rec. XII, 67, 166.
 - removing during working season, Rec. II, 496; XI, 370.
 - removing to prevent swarming, Rec. V, 102.
- queens—
 - mating, Rec. IX, 774.
 - renewal of, Rec. IX, 468, 1071.
- raising food plants for, Rec. IV, 205.
- rearing and management, Rec. XI, 266.
- relation to—
 - alfalfa, Rec. XI, 266.
 - color of flowers, Rec. XI, 271.
 - fruits, Rec. X, 353; XII, 774, 1067.
- relationship of members to colony, Rec. XI, 271.
- relative frequency of visits to various fruit blossoms, Rec. XI, 956.
- securing wild swarms from trees, Rec. XI, 657.
- sex, determination, Rec. XI, 561; XII, 867.
- species and varieties, Rec. VIII, 1000.
- springs—
 - feeding, Rec. IV, 417; VIII, 64, 997; IX, 73.
 - protection, Rec. IV, 417; VIII, 900.
- swarm catcher, description, Rec. XI, 652.
- swarming, Rec. VIII, 902; X, 159, 866; XII, 774, 867.
- swarming—
 - artificial, Rec. VIII, 1001.
 - box, Rec. IX, 369.
 - causes, Rec. IX, 469.
 - device to prevent, Rec. IV, 851.
 - natural, Rec. VIII, 1000.
 - prevention, Rec. VII, 966; VIII, 64, 997, 1001; IX, 469; XI, 172, 561, 657.
- swarms, natural *v.* artificial, Rec. X, 159.
- sweet clover for, Rec. V, 102; IX, 469.
- tests—
 - of honey plants, Bul. 2, I, 100; Rec. II, 496.
 - the plain section, Rec. XI, 1062.
- use of propolis, Rec. XII, 580.
- value in cross fertilization of plants, Rec. I, 297.

Bees—Continued.

- varieties, Rec. I, 296; XI, 266.
- ventilation, effect on wintering, Rec. X, 268.
- watering, Rec. IX, 468, 774.
- weekly increase in weight, Bul. 2, I, 35.
- weight of bodies and loads carried, Rec. X, 366.
- winter cellar, Rec. XI, 172.
- wintering, Bul. 2, I, 99, 167; Rec. II, 395; IV, 205, 417; VI, 64; VII, 143, 401, 880, 967; VIII, 63, 903, 911, 997, 1000; IX, 159, 459, 468, 770, 856; X, 159, 268, 866; XI, 61, 652, 863, 1062; XII, 367.
- worker, Rec. VIII, 1000.

Beeswax—

- adulteration, Rec. III, 814.
- analyses, Rec. III, 814; IV, 616.
- conductivity, Rec. IV, 205.
- examination, Rec. IX, 419.
- moths, notes, Rec. VI, 149; XI, 266.
- production in the United States, Rec. V, 1005.
- rendering, Rec. X, 158.
- secretion, Rec. IV, 205; V, 102.
- separation of free acid, Rec. VII, 17.
- studies, Rec. XII, 612.

Beet— (See also SUGAR BEET.)

- army worm, notes, Rec. XII, 265.
- bacterial disease, notes, Rec. VII, 591; XII, 458.
- carriion beetle—
 - fungus disease, Rec. VI, 237.
 - notes, Rec. V, 101; VIII, 908; X, 65.
- chips, treatment with heated air, Rec. V, 735.
- diseases—
 - notes, Rec. III, 783; XII, 261.
 - seed treatment, Rec. XII, 855.
 - study, Rec. VII, 787.
- downy mildew, notes, Rec. VI, 558.
- dry rot, treatment, Rec. VIII, 141, 317, 801.
- gummosis, Rec. IX, 361.
- harvesting machine, Rec. VII, 631; XI, 540.
- heart rot—
 - notes, Rec. XII, 462.
 - treatment, Rec. VIII, 141, 317, 801.
- juice—
 - determining specific gravity, Rec. V, 728.
 - nitrogenous constituents, Rec. VIII, 688.
 - preparation of nonsugar from, Rec. XII, 21.
- leaf, anatomy, Rec. X, 418.
- leaf spot— (See also CERCOSPORA BETICOLA.)
 - cause, Rec. XI, 468.
 - notes, Rec. II, 581; III, 783; VI, 902.
 - treatment, Rec. V, 653; VI, 736, 906; IX, 958; X, 156, 447; XI, 752.
- leaves—
 - analyses, Rec. VII, 765, 891.
 - dextrose and levulose in, Rec. XII, 214, 309, 912.
 - ensiled, for fattening sheep and oxen, Rec. V, 243.
 - feeding value, Rec. VIII, 252, 821; IX, 479.
 - for green manuring, Rec. IX, 479.
 - for silage, Rec. IX, 479.
 - for testing fungicides, Rec. X, 1051.
- molasses—
 - analyses, Rec. IX, 266.
 - feeding, Rec. VII, 701.
 - utilization, Rec. IX, 377.

Beet—Continued

nematodes—

- ammoniacal liquor for, Rec. VII, 225.
- potash salts for, Rec. IV, 689; V, 732.
- repression, Rec. VIII, 63, 500, 912.

puller and toppler, tests, Rec. XI, 540.

pulp—

- analyses, Rec. VIII, 714; X, 276; XII, 471.
- and molasses for cattle, Rec. XII, 379.
- tops, feeding value, Rec. XII, 379.
- artificial digestion, Rec. IV, 87.
- changes during storage, Rec. III, 642.
- dried, feeding experiments, Rec. III, 928; IV, 784.
- drying, Rec. IV, 783.
- effect on butter, Rec. XI, 781.
- feeding experiments, Rec. VI, 241.
- feeding value, Rec. III, 357; IV, 615; V, 732; VI, 15; VII, 522; X, 246.
- fermented, effect on animals, Rec. V, 130, 341.
- for cattle, Rec. XI, 482; XII, 379.
- cattle and sheep, Rec. XI, 587, 1035.
- cows, Rec. III, 64, 561; V, 724; IX, 984; X, 587, 790; XI, 781; XII, 90, 878.
- pigs, Rec. IV, 784.
- steers, Rec. III, 570.
- frozen, analyses, Rec. III, 498.
- treatment with heated air, Rec. V, 735.
- unfrozen, analyses, Rec. III, 498.
- use and treatment, Rec. II, 181.
- v. sugar beets for milk production, Rec. X, 587.
- wet v. dry, Rec. III, 640.

pulp silage—

- analyses, Rec. X, 276.
- containing lactic acid bacteria, Rec. XI, 714.
- feeding value, Rec. VII, 804.
- nutritive value, Rec. XI, 1075.
- pathogenic properties, Rec. IV, 449, 873.
- reduction of pathogenic influence, Rec. IV, 519.
- v. beets for cows and sheep, Rec. IX, 173.

root—

- bacteriosis, notes, Rec. XII, 458.
- insects, notes, Rec. II, 269.
- rot, biological relationships, Rec. VII, 225.
- rot, notes, Rec. IV, 970; VI, 487, 904, 1000.
- worm, notes, Rec. XI, 429.

roots, *Phoma betæ* on. (See PHOMA BETÆ.)

rust, notes, Rec. III, 783; VI, 906.

scab— (See also POTATO SCAB.)

- notes, Rec. III, 783, 854; VI, 735, 905.
- treatment of beet seed for, Rec. V, 1031.

seed—

- balls, relative values of different sizes
 - Rec. V, 653.
- composition, Rec. IX, 748.
- culture, Rec. IX, 453; XI, 45.
- diseases, notes, Rec. XII, 458.
- seed, germination—
 - apparatus, Rec. XI, 56.
 - as affected by—
 - alkali salts, Rec. X, 745.
 - soaking, Rec. IX, 758.
 - varying amounts of water, Rec. X, 759.
 - experiments, Rec. VI, 224.
 - tests, Rec. IV, 436.

Beet—Continued.

seed—

- harvesting, Rec. X, 955.
- improvements in growing, Rec. V, 731.
- large *v.* small, Rec. X, 644.
- methods of growing high grade, Rec. V, 731.
- parasites, effect on sugar beets, Rec. XI, 948.
- product in Nebraska in 1833, Rec. V, 1005.
- production, Rec. X, 546, 955.
- production as affected by dividing mother beets, Rec. X, 259.
- selection and examination, Rec. V, 347.
- selection and culture, Rec. V, 731, 1030.
- soaking, Rec. X, 645.
- sprouting before sowing, Rec. VI, 984.
- testing, Rec. X, 259; XII, 251.
- testing apparatus, Rec. VIII, 891.
- treatment with carbon bisulphid, Rec. XI, 955.
- value of home grown and imported, Rec. V, 1004.
- viability, Rec. XI, 158.
- yield, value, and cost, Rec. V, 1004.

sickness—

- as affected by potassium carbonate, Rec. X, 266, 653.
- prevention, Rec. VII, 39.
- treatment, Rec. X, 653; XI, 262.

stems, structure, Rec. X, 612.

sugar—

- and cane sugar, comparison, Rec. VII, 257.
- cane sugar, distinction, Rec. VIII, 286.
- cost of making, Rec. X, 246.
- factories, description, Rec. X, 246.

sugar industry—

- as related to stock feeding and dairying, Rec. XI, 535.
- in California, Rec. X, 147.
- Canada, Rec. II, 181.
- England, Rec. II, 181.
- Europe, Rec. II, 93, 181.
- German Empire, Union for, meeting, Rec. VIII, 348.
- Germany, Rec. IX, 696; X, 43; XI, 443; XII, 943.
- Nebraska, Rec. VI, 985.
- Oregon, Rec. VIII, 976.
- Sweden, Rec. IX, 1093.
- the United States, Rec. II, 181, 655; V, 104; IX, 242; X, 741, 743; XII, 742.
- machinery used in, Rec. II, 181.
- statistics, Rec. II, 181.

sugar manufacture, Rec. V, 261; X, 897; XI, 535.

sugar manufacture—

- electrical methods, Rec. XII, 195.
- in Belgium, Rec. X, 43.
- Canada, Rec. III, 658.
- Sweden, Rec. VII, 993; X, 1098.
- statistics, Rec. V, 293.
- treatise, Rec. XII, 694.
- use of ozone, Rec. XII, 195.
- use of sulphurous acid, Rec. XII, 195.
- sugar production, Rec. VIII, 976; IX, 133, 345.

Beet—Continued.

- sugar production, statistics, Rec. VIII, 349, IX, 345.
- sugar sylph, remedies, Rec. IX, 75.
- white rust, notes, Rec. VI, 906.
- "yellows" in France, Rec. X, 649.
- (See also BEETS.)

Beetle—

- found in seed from Paraguay, Rec. VIII, 417.
- living in an insecticide, Rec. I, 41.

Beetles—

- classification, Rec. VIII, 809.
- defensive blood-squirting, Rec. V, 1100.
- injurious to fruit-producing plants, Rec. XII, 166.
- of East India, catalogue, Rec. III, 812.
- middle Europe, monograph, Rec. XI, 562.
- parasitic, Rec. VIII, 807.
- predaceous, Rec. X, 570.
- production of sound, Rec. IX, 77.

Beets— (See also SUGAR BEETS.)

- analyses, Rec. II, 341, 504, 580, 582, 589; III, 401, 859; IV, 59; V, 992; VII, 336; VIII, 508; X, 19, 937.
- and beet leaves, composition, Rec. VI, 418.
- silage for milk production, Rec. V, 969.
- artificial species, Rec. XI, 232.
- assimilation of carbonic acid by, Rec. IV, 613.
- breeding, Rec. X, 42; XI, 232.
- budding and cutting, Rec. X, 42.
- characteristics, Rec. V, 652.
- chemical changes produced by freezing, Rec. XI, 576.
- cooperative experiments, Rec. VII, 30.
- cost of dry matter, Rec. II, 248.
- culture, Rec. IX, 357; X, 749, 955; XI, 241.
- culture—
 - bibliography, Rec. X, 847.
 - experiments, Bul. 2, I, 89; Rec. IV, 38, 39, 346; V, 652; VI, 296; VIII, 313, 407.
 - methods of, Rec. III, 755.
- damage by red weevil, Rec. VIII, 69.
- determination of—
 - mineral and organic acids in, Rec. VII, 557.
 - sugar in, Rec. IV, 692; VII, 557.
- digestibility, Rec. II, 248; VII, 63.
- effect of—
 - Chili saltpeter on, Rec. VII, 198.
 - division on seed production, Rec. IX, 134.
 - fertilizers, Bul. 2, II, 83.
 - lime on, Rec. IX, 937.
 - Peronospora schachtii*, Rec. XI, 759.
 - weed growth, Rec. X, 447.
- electro-culture, Rec. IV, 351; IX, 551.
- fertilizer experiments, Bul. 2, II, 83; Rec. III, 388, 754, 922; V, 171, 346; VII, 579; VIII, 490; X, 636, 936; XI, 444, 543, 725; XII, 641.
- fertilizer experiments on sandy soils, Rec. XII, 622.
- fertilizer formula, Rec. XII, 851.
- fertilizers for, Rec. X, 848.
- fodder—
 - analyses, Rec. V, 538; VIII, 152; IX, 806; X, 839.
 - culture, Rec. X, 42, 1039.
 - culture experiments, Rec. XII, 45.

Beets—Continued.

fodder—continued.

- determination of nutritive value, Rec. XII, 214.
- fertilizer experiments, Rec. V, 346; XII, 429, 843.
- improvement, Rec. XI, 144.
- seed, composition, Rec. IX, 748.
- silage, Rec. IX, 981.
- transplanting, Rec. XI, 1037.
- varieties, Rec. VIII, 686; X, 42; XII, 45.
- for dairy cows, Rec. VIII, 1020; IX, 173, 383; X, 184.
- milk production, Rec. I, 141; V, 887, 969.
- sheep, Rec. IX, 173; XI, 576.
- forcing, Rec. X, 354; XII, 952.
- formation of sugar in, Rec. VIII, 204, 470; XI, 321.
- fungus diseases, notes, Rec. VI, 905; IX, 656.
- germination test, Rec. I, 295.
- harvesting machines, Rec. VI, 346, 541, 848.
- improvements in cultivation, Rec. V, 731.
- insects affecting, Rec. VIII, 147; IX, 470.
- irrigation experiments, Rec. XII, 641.
- limit of tolerance of sodium perchlorate, Rec. XI, 917.
- loss of—
 - sugar in, Rec. VII, 300.
 - weight in storing, Rec. VII, 496.
- mother—
 - storage, Rec. V, 1004.
 - specific gravity balance for heating, Rec. VII, 364.
- nematode on, Rec. V, 1011.
- notes, Rec. V, 590, 783, 785, 790, 910; X, 547; XI, 850, 1047.
- phosphates of potash for, Rec. VII, 670.
- plan for fertilizer experiment, Rec. III, 750, 754.
- premature seed production, Rec. XI, 232.
- production in Russia, Rec. IX, 551.
- propagation by leaves and stems, Rec. V, 652.
- red—
 - fermentation, Rec. XI, 715.
 - fertilizer experiments, Rec. XII, 1037.
- seeding, Rec. VI, 722.
- selection by polarization, Rec. V, 437.
- soil tests with, Rec. X, 938.
- stock, notes, Rec. XI, 1047.
- subirrigation, Rec. V, 680.
- sugar. (*See* SUGAR BEETS.)
- susceptibility to potato scab, Rec. XII, 353.
- swollen, Rec. X, 560.
- underground galls of, Rec. X, 972.
- varieties, Bul. 2, II, 78, 88, 135; Rec. I, 123, 254; II, 62, 69, 109, 395, 515, 566, 582, 596, 607, 669; III, 85, 386, 395, 480, 609, 807; IV, 351, 436, 828; V, 53, 189, 983; VI, 55, 142, 410, 727, 984; VII, 124, 203, 213, 302, 405, 579; VIII, 225, 790, 888, 889; IX, 351, 833; XI, 51; XII, 641.
- vegetable parasites, Rec. IX, 1061.
- v. beet diffusion residue silage for cows and sheep, Rec. IX, 173.
- carrots for cows, Rec. VIII, 1020.
- clover and marsh grass silage for cows, Rec. IX, 383.
- silage for milk production, Rec. I, 141.

Beets—Continued.

- water absorption of seed, Rec. XI, 1056.
- yield and quality as affected by size of seed, Rec. IX, 758.
- Beggar's ticks, notes, Rec. III, 308.
- Beggar weed—
 - analyses, Rec. II, 491, 550.
 - as a feeding stuff, Rec. V, 176.
 - culture, Rec. IV, 646; V, 176; VI, 35; VIII, 892; IX, 41, 243.
 - field experiments, Rec. II, 643.
 - Florida, notes, Rec. X, 542; XI, 339.
 - notes, Rec. IV, 248; VI, 96; VIII, 781.
 - nutritive value, Rec. II, 491.
- Begonia—
 - disease, tobacco for, Rec. VII, 513.
 - diseases, notes, Rec. VI, 233.
 - leaf sickness, Rec. V, 517.
 - rust, flowers of sulphur for, Rec. VII, 311.
- Begonias—
 - breeding, Rec. XI, 453.
 - culture, Rec. X, 758.
 - subject to bacterial disease, Rec. V, 1018.
 - winter flowering, Rec. VII, 586.
- Belgium—
 - agricultural—
 - associations in, Rec. IX, 3.
 - cooperative societies, Rec. XI, 442.
 - laboratories, Rec. V, 550, 551.
 - library, national, Rec. V, 2.
 - schools, Rec. IV, 702; VI, 583.
 - analytical laboratories, Rec. V, 552, 553.
- Belippa lohor* affecting tea, Rec. XI, 1062.
- Belleville dock, notes, Rec. V, 875.
- Belostoma americanum*, notes, Rec. I, 292; VI, 236.
- Belt fastenings, Rec. VI, 264.
- Belvosia, study of species, Rec. IV, 851.
- Bembecia*—
 - hylaformis*, notes, Rec. IX, 1072.
 - marginata*, notes, Rec. III, 313, 705; IV, 838; V, 403; VIII, 906.
- Benacus griseus*, notes, Rec. I, 292; VI, 236.
- Ben Nevis Observatory, Rec. XI, 819.
- Benicasa cerifera*, notes, Rec. VI, 217; VII, 308.
- Bent grass— (*See also* AGROSTIS.)
 - analyses, Rec. II, 487.
 - creeping—
 - as a forage plant, Rec. III, 29.
 - notes, Rec. II, 601, 740; III, 29.
 - seed, viability, Rec. XI, 158.
 - for meadows and pastures, Rec. II, 238.
- Rhode Island—
 - analyses, Rec. IV, 475; V, 64.
 - culture, Rec. III, 158.
 - for lawns, Rec. III, 532.
 - notes, Rec. V, 786; XII, 332.
 - seeds, Rec. II, 428.
 - white, analyses, Rec. II, 487.
- Benzin—
 - and carbon bisulphid for soil treatment of insects, Rec. X, 660.
 - as an insecticide, Rec. VI, 1007.
 - effect on micro-organisms, Rec. VII, 660.
 - for pear-tree psylla, Rec. IV, 474.
- Benzoic acid—
 - as an insecticide, Rec. II, 319.
 - in milk, detection, Rec. XI, 705.

Benzol for determination of iodine number of fats and fatty acids, Rec. X, 608.

Benzolin—

- effect on potato plants, Rec. X, 560.
- for phylloxera, Rec. X, 567; XI, 175.

Berberis— (See also BARBERRY.)

- amurensis*, notes, Rec. III, 788.
- repens*, notes, Rec. III, 521.
- spp., notes, Rec. VI, 221.
- thunbergii*, notes, Rec. IV, 655.
- vulgaris*, notes, Rec. IV, 655; VIII, 55.

Bergamot, development of essence, Rec. XII, 108.

Bergrothia steelii, notes, Rec. VI, 443.

Berg's lactoscope, notes, Rec. VI, 475.

Beri-beri, repression, Rec. X, 192.

Berlin, Germany—

- Division of Agriculture and Forestry of Health Office, Rec. X, 400.
- kite and balloon station near, Rec. XII, 118.

Berlin University, notes, Rec. IV, 108.

Bermuda grass—

- analyses, Bul. 2, I, 181; Rec. II, 50; VIII, 810.
- as a forage plant, Rec. III, 29.
- culture experiments, Rec. IV, 38; VI, 294; X, 244.
- digestibility, Bul. 2, I, 181.
- eradication, Rec. IX, 142.
- hay—

- analyses, Rec. VIII, 810.
- for cows, Rec. II, 362; III, 166; IV, 259.
- mules, Rec. III, 167.

in Arizona, Rec. IX, 1055.

methods of destroying, Rec. VI, 430.

- notes, Bul. 2, I, 189; Rec. I, 183; II, 50, 69, 330, 600, 658; IV, 248; V, 161; VI, 694, 823; VII, 116, 296; IX, 142, 1055; X, 147, 343, 547; XI, 154.

smuts, Rec. XI, 949; XII, 359.

Bermuda lilies, causes of imperfect flowers, Rec. XI, 454.

Bermuda lily disease, Rec. X, 456, 457.

Bermuda lily disease—

- prevention, Rec. IX, 658.
- studies, Rec. IX, 362.

Bermuda onions, culture, Rec. XI, 153.

Bernburg, Germany—

- Experiment Station at, Rec. V, 749, 835.
- garden and greenhouse at experiment station at, Rec. V, 752.
- laboratory of experiment station at, Rec. V, 750.

Berries, edible, of Alaska, Rec. XI, 851.

Berrigan separator, tests, Rec. IV, 362, 363.

Berry bushes, support, Rec. VI, 221.

Berteroia incana, notes, Rec. IX, 653.

Bertholletia excelsa, notes, Rec. VIII, 231.

Bessarabia, Experiment Station for Wine Making, report, Rec. X, 396.

Beta—

- culture experiments, Rec. VII, 397.
- naphthalene sulphonic acid as a reagent, Rec. IX, 521.

Beta—

- maritima*, notes, Rec. XI, 232.
- vulgaris*, notes, Rec. XI, 232.

Betel nut—

- alkaloids in, Rec. III, 654
- properties and uses, Rec. VIII, 231, 254.

Betula— (See also BIRCH.)

- alba*, notes, Rec. IV, 654; V, 631; VII, 134.
- alba laciniata*, notes, Rec. XI, 855.
- alba laciniata pendula*, notes, Rec. VIII, 604.
- amurensis*, notes, Rec. III, 788.
- lutea*, notes, Rec. IV, 654; V, 631.
- nigra*, notes, Rec. III, 521.
- occidentalis*, notes, Rec. III, 521.
- papyracea*, notes, Rec. VIII, 604.
- papyrifera*, notes, Rec. III, 521; IV, 654; V, 631; VII, 94; XII, 153.
- pomifoliella*, notes, Rec. V, 631.
- pumila*, notes, Rec. XI, 855.

Betulaceæ—

- anatomy, Rec. VIII, 380, 670.
- embryology, Rec. VI, 195, 279.

Beverages—

- analyses, Rec. XI, 314.
- methods of examining, Rec. XI, 482.

Bhakha plant and its effects on cattle, Rec. VI, 245.

Blastrospora, relation to cultivation, Rec. XII, 109.

Bibio—

- albipennis*, notes, Rec. IV, 204; VI, 649.
- hortulanus* affecting cereals, Rec. XI, 1057.

Bibliography—

- in the teaching of chemistry, Rec. VII, 270.
- of American economic entomology, Rec. VII, 147; X, 470.
- dermatology, Rec. XI, 392.
- fungus diseases, Rec. V, 1078; X, 267.
- insects affecting clover, Rec. I, 292.
- literature of Russian soils, Rec. XI, 32.
- meteorology, Rec. XI, 221.
- milk, Rec. XII, 501, 786.
- North American dipterology, Rec. VII, 699.
- peanut, Rec. VII, 188, 681.
- plant culture, Rec. X, 846.
- potato culture, Rec. X, 847.
- tuberculosis, Rec. XI, 193.
- veterinary medicine, Rec. XI, 195.

Bibra cake, analyses, Rec. XII, 71.

Bicarbonate of sodium for wheat smut, Rec. II, 221.

Bichlorid of mercury. (See CORROSIVE SUBLIMATE.)

Bichromate of potash. (See POTASSIUM BICHROMATE.)

Bicycle rider, expenditure of muscular energy, Rec. IX, 1079.

Bidens—

- alamosanum*, notes, Rec. III, 103.
- bipinnata*, notes, Rec. III, 893.
- frondosa*—
- analyses, Rec. III, 629.
- notes, Rec. III, 308.

Big head—

- of cattle. (See ACTINOMYCOSIS.)
- horses, Rec. II, 168; V, 79; VII, 64.

Big trees of California, Rec. XII, 754, 755.

Bigelovia graveolens, var. *albicaulis*, notes, Rec. III, 52.

Bile—

- of anthrax-infected animals, Rec. XI, 695.
- diseased animals, effect on healthy animals, Rec. XI, 892.

Bilharzia crassa, study, Rec. XI, 696.

Billbug—

- brown, notes, Rec. IV, 415.
- clay-colored, notes, Rec. IV, 415.
- timothy, notes, Rec. X, 1059.

Billbugs—

- corn, Rec. VII, 878.
- notes, Rec. V, 101.

Billow clouds, wave, Rec. XI, 222.

Binding twine, tests, Rec. VI, 252.

Bindweed—

- black—
 - notes, Rec. IV, 699; V, 529; VIII, 703.
 - root system, Rec. IV, 46.
- bracted, root system, Rec. IV, 45.
- eradication, Rec. IX, 453, 454; XI, 749.
- notes, Rec. V, 529, 539; X, 1048; XI, 354, 651.
- root system, Rec. IV, 45.

Biochemistry, importance of study, Rec. V, 454.

Biographical sketch—

- of Hellriegel, Rec. VII, 657.
- C. L. Ingersoll, Rec. VIII, 268.
- Increase Allen Lapham, Rec. VIII, 111.
- Sir John Bennet Lawes, Rec. XII, 201.
- Justus von Liebig, Rec. VII, 270.
- J. A. Lintner, Rec. XI, 656.
- Justin S. Morrill, Rec. X, 501.
- G. E. Morrow, Rec. XI, 1002.
- C. V. Riley, Rec. VIII, 268.
- Dr. E. L. Sturtevant, Rec. X, 301.
- H. L. de Vilmorin, Rec. XI, 201.
- George E. Waring, jr., Rec. X, 499.

Biological—

- and dairy building, New York State Station, Rec. X, 401.
- annual, Rec. X, 98.
- experiment station of University of Illinois, report, Rec. VIII, 960.
- experiments, limits, Rec. VI, 488.
- laboratory at Point Judith Pond, Rec. X, 929.
- reconnaissance of south-central Idaho, Rec. III, 184.
- stations for fresh-water fish, Rec. IV, 985.
- survey—
 - of Indiana, Rec. VI, 488.
 - Mount Shasta, Rec. XI, 428.
 - the San Francisco Mountain region and desert of the Little Colorado, Rec. II, 179.
 - relation to agriculture, Rec. II, 180.

Biology—

- and anatomy of phylloxera, Rec. V, 822, 1100.
- climate, Rec. VII, 19.
- elementary, Rec. IX, 423.
- handbook for laboratory, Rec. IX, 629.
- of *Agaricus velutipes*, Rec. XI, 28.
- Bacillus baccharinii*, Rec. X, 224.
- Bacillus tuberculosis*, Rec. X, 495.
- bacteria, Rec. X, 224.
- buds, Rec. IV, 517.
- cattle tick, Rec. IV, 731.
- closure of stomata, Rec. XI, 115.
- fluorescent bacteria, Rec. VII, 279.
- flowers, Rec. IX, 330; X, 320.
- fungi, Rec. VIII, 996.
- geophilous plants, Rec. VII, 838.
- parasitic fungi, Rec. X, 764; XI, 322.
- plant lice, Rec. IX, 158.

Biology—Continued.

- of plants with underground shoots, Rec. VII, 94.
- pollen, Rec. VII, 838; VIII, 108, 670; X, 416, 1013; XI, 319.
- silage, Rec. I, 200.
- Uredineæ, Rec. V, 663.
- variegated leaves, Rec. VIII, 29.
- winter wheat, Rec. XI, 28.
- wood-frequenting fungi, Rec. XI, 322.
- woody plants, Rec. VIII, 471.
- text-books, Rec. VII, 94, 842.

Biota orientalis, notes, Rec. V, 54; XI, 949.

"Biotes," food value, Rec. XII, 78.

Bipalium kewense, notes, Rec. XII, 1062.

Birch— (See also BETULA.)

- black, notes, Rec. III, 521.
- boughs, analyses, Rec. I, 15.
- bucculatrix, notes, Rec. V, 631.
- canoe, notes, Rec. III, 521; IV, 654.
- cut-leaf, weeping, Rec. VIII, 604.
- cut-leaved, notes, Rec. III, 788; IV, 654; XI, 855.
- dwarf, notes, Rec. XI, 855.
- European, notes, Rec. IV, 654.
- grafting in open air, Rec. V, 1018.
- leaves—
 - ash analyses, Rec. XII, 1006.
 - fungus disease, Rec. VII, 774.
- paper, notes, Rec. IV, 654.
- purple, notes, Rec. IV, 654.
- red, notes, Rec. III, 521.
- seed, management, Rec. XI, 355.
- tree disease, notes, Rec. XII, 658.
- trees, rate of growth, Rec. IV, 45.
- white, notes, Rec. I, 315; IV, 654, 829; VII, 134; VIII, 604.
- yellow, notes, Rec. I, 315; IV, 654, 829.

Birches, hybrid, Rec. VII, 135.

Bird—

- calendar, Rec. VII, 471.
- cherry, notes, Rec. III, 788; IV, 655.
- day in the schools, Rec. X, 198.
- flea, notes, Rec. IX, 254; XI, 263.
- foot clover, notes, Bul. 2, I, 189; Rec. II, 650.
- guano, analyses, Rec. VIII, 682.
- lice—
 - as mutualists, Rec. VI, 740.
 - new species, Rec. VII, 968.
 - of poultry, Rec. XI, 495.
- notes for horticulturists, Rec. IV, 876.

Birds—

- anatomy of tongues, Rec. IX, 1031.
- and insects, relation to forests, Rec. VIII, 891; IX, 142.
- the weather, Rec. VII, 474.
- as affected by subcutaneous injections of sugar solutions, Rec. XI, 483.
- destroyers of caterpillars, Rec. XII, 366.
- insect destroyers, Rec. III, 812.
- propagators of silkworm maladies, Rec. IX, 967.
- protectors of orchards, Rec. VIII, 753.
- weed destroyers, Rec. XI, 425.
- benefits of, Rec. IX, 230.
- collecting and mounting, Rec. VIII, 473.

Birds—Continued.

- composition and food value, *Rec. XII*, 282.
 crop and gizzard contents, *Rec. VIII*, 961.
 dispersal of seeds by, *Rec. VII*, 689.
 digestion, *Rec. XII*, 587.
 economic relations, *Rec. IX*, 727; *XII*, 423, 830.
 feeding habits, *Rec. XI*, 428.
 food of—
 common, *Rec. IX*, 727.
 native, *Rec. VIII*, 751; *IX*, 729.
 grain eating, *Rec. X*, 521.
 Hematozoa of, *Rec. V*, 730.
 Hematozoan infection, *Rec. X*, 497.
 importation, *Rec. XII*, 617, 830.
 injuring—
 apples, *Rec. VI*, 300.
 trees, *Rec. IX*, 53.
 injurious—
 and useful, *Rec. VIII*, 961.
 danger of introducing, *Rec. XI*, 425.
 remedies, *Rec. XI*, 372, 659.
 insectivorous—
 encouragement, *Rec. XII*, 423.
 of Belgium, *Rec. IX*, 230.
 New South Wales, *Rec. VIII*, 148; *IX*, 230; *XII*, 423.
 protection, *Rec. IX*, 964.
 migration, *Rec. IX*, 1031; *XI*, 222.
 migration. (*See also* footnote, p. 68.)
 new, from Mexico, *Rec. IX*, 1031.
 new tapeworm, *Rec. IX*, 1031.
 North American, manual, *Rec. VIII*, 961.
 of Colorado, notes, *Rec. IX*, 229; *X*, 521.
 Death Valley, California, *Rec. V*, 90.
 Michigan, bibliography, *Rec. V*, 161; *VII*, 471.
 Nebraska, notes, *Rec. VIII*, 961; *X*, 324.
 North America, *Rec. VIII*, 961.
 North Carolina, list, *Rec. X*, 324.
 Oregon, notes, *Rec. II*, 374.
 Pennsylvania, *Rec. VIII*, 752.
 prey of Manitoba, *Rec. XI*, 425.
 Wayne County, Ohio, *Rec. VIII*, 753.
 Zwickau, *Rec. IX*, 1031.
 parasites, *Rec. VIII*, 416.
 protection, *Rec. V*, 161, 257; *XII*, 423, 617, 698.
 protection—
 laws of German Empire, *Rec. IX*, 1031.
 officials and organizations concerned, *Rec. XII*, 617.
 protective legislation, *Rec. XII*, 616.
 Sarcosporidia in, *Rec. V*, 513.
 song, as affected by approaching storms, *Rec. X*, 419.
 species destroying locusts, *Bul. 2*, *II*, 93.
 tuberculosis, *Rec. VIII*, 159; *X*, 495; *XI*, 794.
 useful and injurious, *Rec. VIII*, 961.
 useful, protection, *Rec. VII*, 471; *IX*, 229.
 voice registers, *Rec. IX*, 1031.
 wild—
 protection, *Rec. VII*, 471.
 useful, *Rec. VI*, 694.
 useful and injurious, *Rec. V*, 1031; *VII*, 470.
 Biscuit and bread, experiments with, *Rec. IV*, 389, 694.
- Biston cognitaria*, notes, *Rec. VIII*, 69.
 Bisulphid of carbon. (*See* CARBON BISULPHID.)
 Biting spiders, notes, *Rec. VI*, 740.
 Bitter dock—
 analyses, *Rec. III*, 629.
 notes, *Rec. III*, 893.
 Bitter grass, analyses, *Rec. V*, 64, 65.
 Bitter hickory, notes, *Rec. II*, 512; *III*, 521; *IV*, 654.
 Bitter rot, notes, *Rec. XII*, 953.
 Bittersweet, notes, *Rec. III*, 521; *IV*, 656; *X*, 516.
 Bitterweed, notes, *Rec. VIII*, 703.
 Bituminous-coal ashes, analyses, *Rec. VII*, 670.
 Bituminous shale, analyses, *Rec. VI*, 274.
 Black bindweed. (*See* BINDWEED, BLACK.)
 Black cherry, wild, notes, *Rec. I*, 315; *II*, 663, 741; *III*, 522.
 Black Damas stocks for apricots, *Rec. II*, 218.
 Black death—
 analyses, *Rec. XII*, 67.
 inoculation experiments, *Rec. XI*, 91.
 Black grama. (*See* GRAMA, BLACK.)
 Black grass—
 analyses, *Rec. II*, 487; *IX*, 866.
 notes, *Rec. II*, 486.
 Black grub, notes, *Rec. V*, 206.
 Black-headed worm, notes, *Rec. V*, 800.
 Blackhead of poultry, notes, *Rec. XII*, 894.
 (*See also* AMOEBA MELEAGRIDIS.)
 Black-jack ashes, analyses, *Rec. V*, 290.
 Black knot— (*See also* PLUM BLACK KNOT.)
 cause, symptoms, and treatment, *Rec. VIII*, 607.
 external characteristics, *Rec. IV*, 909.
 notes, *Rec. XI*, 170, 369; *XII*, 997.
 treatment, *Rec. VI*, 560, 909; *X*, 661.
 Black lice on plum and cherry, *Rec. IX*, 1065.
 Black mold, notes, *Rec. V*, 60, 603.
 Black muck, analyses, *Rec. II*, 5.
 Black nightshade, notes, *Rec. X*, 516; *XI*, 858.
 Black paria, notes, *Rec. V*, 681.
 Black plague bacillus, effect on organs of animals, *Rec. XI*, 91.
 Black Rot Commission, conclusions, *Rec. IX*, 1060.
 Black rust, investigations, *Rec. IX*, 148, 759.
 Black slug, notes, *Rec. IX*, 74.
 "Black sulphur." (*See* PAR OIDIUM.)
 Black walnut. (*See* WALNUT, BLACK.)
 Black-water fever, *Rec. X*, 694.
 Black wattle—
 profitableness of culture, *Rec. III*, 595.
 tannin in, *Rec. III*, 595.
 Black weevil. (*See* CALANDRA ORYZE.)
 Blackberries—
 analyses, *Rec. IV*, 59; *XI*, 1046.
 bud development, *Rec. XI*, 851.
 cross fertilization, *Rec. II*, 509.
 culture, *Rec. III*, 607; *V*, 394; *VII*, 501, 960; *VIII*, 791, 980; *IX*, 52, 450.
 culture experiments, *Rec. XI*, 735.
 fertilizer experiments, *Bul. 2*, *I*, 94; *Rec. XI*, 735, 1039; *XII*, 344.
 fungicides and insecticides for, *Rec. V*, 684.
 irrigation, *Rec. XI*, 735, 1039; *XII*, 246.
 notes, *Rec. III*, 522; *X*, 547; *XI*, 251.

Blackberries—Continued.

of Saxony, *Rec. IX*, 358.
 Oregon evergreen, *Rec. XII*, 246.
 varieties, *Bul. 2, I*, 67, 183, 190; *Bul. 2, II*, 88, 91, 117; *Rec. I*, 84, 229, 287, 320; *II*, 5, 6, 22, 25, 50, 147, 235, 295, 322, 327, 354, 372, 556, 586, 598, 653, 659, 668, 740; *III*, 82, 85, 290, 314, 356, 361, 402, 411, 700, 722, 781; *IV*, 44, 166, 436, 556, 651, 652, 728, 918; *V*, 53, 190, 301, 302, 496, 584, 585, 593, 681, 786, 856, 870, 871, 873, 983, 984, 985, 1075, 1076; *VI*, 52, 55, 56, 142, 423, 424, 636, 637, 725, 727, 988, 992; *VII*, 34, 128, 129, 130, 214, 405, 502, 955; *VIII*, 134, 496, 601, 791, 898, 980; *IX*, 50, 137, 244, 245, 353, 354, 450, 1052; *X*, 48, 49, 255, 436, 962, 1043; *XI*, 150, 153, 252, 452, 544, 644, 650, 850, 929; *XII*, 237, 645, 854.

Blackberry—

anthracnose, notes, *Rec. III*, 411, 847; *IV*, 659; *V*, 498; *IX*, 762; *X*, 266.
 bacterial disease, *Rec. IX*, 762.
 borers, notes, *Bul. 2, I*, 167; *Rec. III*, 327.
 cane borer—
 notes, *Rec. II*, 420; *III*, 705; *IV*, 839; *V*, 498.
 red-necked, notes, *Rec. V*, 403.
 cane sawfly, notes, *Rec. V*, 403.
 crown borer, notes, *Rec. III*, 705; *IV*, 838; *V*, 403, 499.
 diseases in the Hudson Valley, *Rec. XII*, 154.
 flea louse, notes, *Rec. IV*, 839; *VIII*, 311.
 gall, seed-like, notes, *Rec. IV*, 838.
 insects affecting, *Rec. III*, 811; *IV*, 56; *VI*, 563.
 leaf blight, treatment, *Rec. II*, 32.
 leaf miner—
 case-bearing, notes, *Rec. IV*, 839.
 notes, *Rec. IV*, 838, 839; *V*, 593.
 leaf roller, notes, *Rec. IV*, 839.
 leaf spot, notes, *Rec. V*, 498; *IX*, 762; *XI*, 314.
 midge, notes, *Rec. III*, 705; *IV*, 839.
 mistletoe disease, *Rec. VIII*, 311.
 orange rust, *Rec. V*, 876; *XI*, 314.
 pests, notes, *Rec. V*, 402.
 pithy gall, notes, *Rec. IV*, 838.
 rust—
 fungicides for, *Rec. IV*, 43.
 notes, *Rec. II*, 455, 482; *III*, 161, 479; *V*, 498; *IX*, 762.
 prevalence, *Rec. III*, 515.
 prevention, *Rec. IX*, 324.
 treatment, *Rec. II*, 32; *IV*, 43.
 stem gall midge, notes, *Rec. IV*, 839.

Blackbirds—

as enemies of the—
 cotton worm, *Rec. II*, 319.
 walnut span worm, *Rec. V*, 100.
 economic relations, *Rec. XII*, 423.
 food habits, *Rec. XII*, 828.

Blackbutt, ash analyses, *Rec. XII*, 39.Blackeye peas as a silage crop, *Rec. VIII*, 778.

Blackleg—

and malignant edema, *Rec. VI*, 165.
 bacillus—
 notes, *Rec. XI*, 992.
 studier, *Rec. XII*, 691.
 differential diagnosis, *Rec. XI*, 985.

Blackleg—Continued.

in Massachusetts, *Rec. XI*, 1087.
 Norway, *Rec. XI*, 693.
 Pennsylvania, notes, *Rec. XII*, 684.
 the United States, *Rec. XI*, 991.
 investigations, *Rec. XII*, 687.
 notes, *Rec. VIII*, 626; *X*, 296, 794; *XI*, 393, 498, 995, 1087; *XII*, 488, 597, 691, 790, 892.
 of cattle—
 symptoms, *Rec. II*, 364.
 treatment, *Rec. II*, 364.
 of sheep, nature and treatment, *Rec. III*, 537.
 studies, *Rec. XII*, 293.
 transmission to man, *Rec. XI*, 288.
 treatment, *Rec. X*, 191, 195, 395, 396; *XI*, 793, 796.
 vaccination for, *Rec. II*, 364; *IX*, 694; *X*, 893; *XI*, 192, 494; *XII*, 691, 885, 898, 988, 1089.
 vaccination—
 in Freiburg, *Rec. XI*, 593.
 precautions, *Rec. XI*, 695.
 technique, *Rec. XI*, 494.
 vaccine, *Rec. XII*, 597.
 vaccine—
 directions for use, *Rec. IX*, 694.
 preparation, *Rec. XI*, 288, 494, 1091.
 studies, *Rec. XI*, 192, 593.

Blacksmith, dietary, *Rec. V*, 595.Bladder campion, notes, *Rec. IX*, 453.Bladder ferns, culture, *Rec. X*, 641.

Bladder ketmia—

notes, *Rec. V*, 399; *X*, 121.
 root system, *Rec. IV*, 46.

Bladder nut, notes, *Rec. III*, 521.Bladder worm, notes, *Rec. II*, 79.*Blanyulus guttulatus*, notes, *Rec. V*, 530, 531.*Blarina brevicauda*, notes, *Rec. X*, 25.

Blast furnace—

cinder and soot, analyses, *Rec. VIII*, 768.
 dust as a fertilizer, *Rec. XI*, 1026.

Blastobasis—

chalcifrontella, notes, *Rec. VI*, 313.
glandulosa, notes, *Rec. VI*, 440.

Blastomycete parasitic on filberts, *Rec. IX*, 1062.Blastomycetes, morphology, *Rec. IX*, 362, 812.Blastophaga experiments in California, *Rec. XI*, 1100.*Blastophaga grossorum*—

introduction into California, *Rec. X*, 768.
 notes, *Rec. III*, 414; *VI*, 654; *XI*, 950.
 (*See also* FIGS, CAPRIFICATION.)

Blatchford's Calf Meal, analyses, *Rec. XI*, 279, 777, 971.*Blatta germanica*— (*See also* COCKROACHES.)

digestive organs, *Rec. XI*, 767.
 notes, *Rec. IX*, 463.

Bleachery refuse, analyses, *Rec. X*, 428.Bleeding, effect on chemical composition of blood, *Rec. IX*, 95.Bleeding heart, notes, *Rec. IV*, 653.*Blennocampa paupera*, notes, *Rec. IV*, 838.*Blepharida rhois*, notes, *Bul. 2, I*, 91.*Blighia sapida*, notes, *Rec. VI*, 221.Blight of variegated plants, *Rec. V*, 401.Blights of cereals, *Rec. X*, 653.Blights of cereals, liming and sulphuring as a preventive, *Rec. X*, 764.

Blind staggers, Rec. V, 995.

Blissus—

dorix—

means of distribution, Rec. XII, 663.
notes, Rec. IX, 1072.

leucopterus. (See CHINCH BUG.)

Blister beetle—

as an enemy of locust, Bul. 2, II, 93; Rec. III, 228.

ash gray. (See EPICAUTA CINEREA.)
black—

notes, Bul. 2, I, 101; Rec. III, 175; V, 685.
remedies, Rec. IV, 58.

gray. (See MACROBASIS UNICOLOR.)

margined, notes, Rec. VIII, 136.

striped, notes, Rec. V, 685; XII, 637.

Blister beetles—

in Texas, Rec. IV, 282.

notes, Rec. II, 734; III, 784; V, 101, 631; VI, 150; VIII, 145, 1002; IX, 67, 458, 662, 855.

on sugar beets, Rec. IV, 824.

remedies, Rec. VIII, 905.

Blister fluid, treatment, Rec. XI, 496.

Blister mite—

notes, Rec. V, 498.

pear-leaf, notes, Rec. IX, 262.

"Blizzard," origin of word, Rec. XI, 221.

Block system for numbering country houses, Rec. VI, 754.

Blood—

albumen, analyses, Rec. V, 777.

and bone boiled, analyses, Rec. XII, 907.

argon and nitrogen content, Rec. VIII, 719.

coagulation as affected by antileucocyte serum, Rec. XII, 598.

coagulating ferment, Rec. IX, 1029.

composition as affected by bleeding, Rec. IX, 95.

corpuscles—

agglutination, Rec. XI, 292.

white, function, Rec. IX, 692.

determination of glucose, Rec. XI, 22.

dried—

analyses, Rec. II, 101, 280, 481, 581, 659; III, 6, 8, 162, 168, 299, 444, 533; IV, 25; V, 288, 290, 861; VI, 396, 401, 631, 797; VII, 109, 111, 195, 668, 854, 940; VIII, 389, 563, 767, 877, 966; IX, 538, 636, 919, 934, 1044; X, 230, 426, 716, 919, 1031, 1033; XI, 39, 138, 719, 830, 831, 917; XII, 129, 131, 717, 840, 907, 931, 981.

as a fertilizer, Rec. III, 927; VI, 400.

available phosphoric acid in, Rec. V, 288.

effect on growing rye in presence of phosphates, Rec. XI, 526.

for grass and oats, Rec. V, 575, 579.

sweet potatoes, Rec. V, 394.

tobacco, Rec. IV, 32.

wheat, Rec. IV, 342.

statistics of production, Rec. VII, 101.

v. nitrate of soda for wheat, Rec. V, 165.

examination in disease, Rec. IX, 95.

fermentation, Rec. III, 749.

for pigs, Rec. II, 426.

in sepsis, pyemia, and osteomyelitis, bacteriological examination, Rec. V, 927.

Blood louse. (See APHIS, WOOLLY.)

Blood-molasses—

analyses, Rec. IX, 266.

effect on milk production, Rec. X, 588.

feed—

analyses, Rec. XII, 71.

for horses, Rec. IX, 980; XI, 880.

v. grain for pigs, Rec. XI, 69.

Blood—

nitrogen content when fasting, Rec. IX, 175.
of animals, albuminoid substances and hematin from, Rec. V, 438.

preservation with molasses, Rec. VIII, 537.

pressure as affected by omitting water from diet, Rec. XII, 177.

Blood serum—

albuminoids, precipitation, Rec. VI, 111.

cultures, isolation of bacteria, Rec. VII, 13.
effect on—

digestive ferments, Rec. IX, 1079.

healthy animals, Rec. XI, 892.

for combating rinderpest, Rec. X, 496.

treatment of erysipulous affections, Rec. VII, 526.

preparation and nature, Rec. III, 748.

Blood, sheep's, analyses, Rec. II, 504.

Blood-squirting beetles, Rec. V, 1100.

Blood substances soluble in ether, Rec. XII, 587.

Blood vessels, text-book of diseases, Rec. XI, 1090.

Bloodwood—

ash, analyses, Rec. XII, 39.

notes, Rec. VII, 839.

Blossoms—

blighting, Rec. VI, 61.

fruit, nonfertility, Rec. VI, 992.

relation to fruit, Rec. VI, 991.

Blue devil—

analyses, Rec. III, 629.

notes, Rec. III, 893

Blue grama. (See GRAMA, BLUE.)

Blue grass—

analyses, Rec. II, 218; VII, 155.

Australian. (See AUSTRALIAN BLUE GRASS.)

best time to cut, Rec. II, 218.

Canadian—

for meadows and pastures, Rec. II, 238.

notes, Rec. VII, 384.

chemical study, Rec. II, 218.

English—

analyses, Bul. 2, II, 38; Rec. VI, 404.

culture experiments, Rec. I, 121.

field experiments, Rec. II, 21.

notes, Rec. II, 600, 740; XII, 539.

germination tests, Rec. VI, 429.

Kentucky. (See KENTUCKY BLUE GRASS.)

leaf smut, studies, Rec. XII, 358.

sand, notes, Rec. XI, 423.

seaside, notes, Rec. XI, 423.

seed, viability, Rec. XI, 158.

Texas. (See TEXAS BLUE GRASS.)

vitality of green seed, Rec. II, 632.

weevil, notes, Rec. II, 81.

worm, notes, Rec. V, 101; VI, 63.

Blue-grass hay—

analyses, Rec. VI, 1008.

English, analyses, Rec. VIII, 810.

Blue gum tree of New South Wales, Rec. VI, 730.

Blue Hill Observatory, Rec. X, 325.

- Blue jays, food, Rec. IX, 527.
- Blue joint—
analyses, Bul. 2, II, 51; Rec. II, 329, 644; III, 629; IV, 769, 770; VI, 403.
as a forage plant, Rec. III, 28, 52.
as a forage plant in Sweden, Rec. IV, 771.
Canadian, notes, Rec. VII, 384.
cultufe experiments, Rec. XI, 43.
digestibility, Bul. 2, II, 55, 61.
hay, analyses, Rec. VI, 1008.
notes, Rec. IV, 925.
- Blue lupine. (See LUPINE, BLUE.)
- Blue rays, effect on persistence of oak leaves, Rec. XI, 907.
- Blue stem— (See also AGROPYRON.)
big, analyses, Rec. VI, 403.
(See also ANDROPOGON PROVINCIALIS.)
bushy—
analyses, Rec. VI, 403.
notes, Rec. X, 343.
Colorado, analyses, Rec. II, 329.
notes, Rec. I, 168; V, 679; VIII, 780.
- Blue thistle, notes, Rec. III, 893; IX, 846.
- Blue tick, relation to red water ticks, Rec. X, 1076.
- Blue titmouse, notes, Rec. IX, 230.
- Blue vitriol—
effect on vitality of seed corn and wheat, Rec. II, 32.
for pourridie of grapes, Rec. V, 1031.
preparation and use, Rec. III, 23.
- Blue weed—
analyses, Rec. III, 629.
notes, Rec. II, 745; IV, 46, 591; V, 529; VI, 732; X, 343.
- Blueberries—
improvement, Rec. XII, 798.
notes, Rec. XI, 931.
varieties, Rec. VII, 214.
- Blueberry spanworm, notes, Rec. IX, 69.
- Bluebirds, decrease, Rec. IX, 925.
- Bluebottle fly, notes, Rec. IX, 63; XI, 263.
- Bluestone solution for wheat smut, Rec. IX, 639; X, 836.
- Blumea balsamifera*, notes, Rec. VII, 774.
- Boar, wild, and domestic pigs, crosses, Rec. V, 733.
- Boarding houses and clubs for working women, Rec. IX, 980.
- Boarmia plumigeraria*, notes, Rec. V, 100; VI, 312; IX, 669.
- Boat vrac, analyses, Rec. VI, 630.
- Bobolinks, food habits, Rec. XII, 828.
- Bocage, varieties, Rec. VII, 405.
- Bocconia cordata*, notes, Rec. II, 607; IV, 653.
- Boehmeria nivea*, notes, Rec. VII, 954; X, 725; XI, 220.
- Borhavia annulata*, notes, Rec. VI, 114.
- Bog land reclamation, Rec. XI, 226.
- Bog rush—
big-headed, analyses, Rec. VI, 404.
slender, analyses, Rec. VI, 404.
- Bog rushes, notes, Rec. X, 343.
- Bog sedge. (See SEDGE, BOG.)
- Bohus, Sweden, report, Rec. XI, 1055.
- Boiler soot, analyses, Rec. V, 164; VI, 287.
- Boiling point—
apparatus, Rec. XI, 313.
curves of certain mixtures, Rec. XI, 619.
- Bokhara clover. (See SWEET CLOVER.)
- Boletus*—
edulus, notes, Rec. V, 803, 819.
luridus, notes, Rec. XI, 121, 515.
lutens, notes, Rec. VI, 728.
satanus, notes, Rec. XI, 121.
sublutens, notes, Rec. X, 551.
- Bolivian guano—
for corn, Rec. II, 484.
potatoes, Rec. II, 458.
- Bolleana poplar, notes, Rec. IV, 655.
- Bollworm—
early accounts, Rec. IV, 83.
host plants, Rec. XI, 871.
in Australia, Rec. V, 328.
notes, Bul. 2, II, 15; Rec. I, 13, 22, 295; II, 101, 318, 746; III, 53, 54, 175, 282, 859, 876; IV, 204, 354, 760, 851; V, 63, 189, 402, 517, 594, 792; VI, 151; VIII, 146, 611, 998, 1002; IX, 70, 370; X, 62, 164, 1069; XI, 471, 760, 952; XII, 365, 770, 1058, 1067.
on strawberries, Rec. IX, 670.
sweet corn, Rec. V, 189.
tomatoes, Rec. VI, 141.
parasitic disease, Rec. IV, 204.
remedies, Rec. XI, 63, 471, 569.
- Bomb calorimeter—
analyses with, Rec. IX, 419.
experimental errors, Rec. XII, 612.
for study of commercial saccharin, Rec. VIII, 105.
hydrothermal value, Rec. IX, 418.
improved form, Rec. X, 678.
new form, Rec. VII, 599.
rapidity of combustion, Rec. XII, 612.
- Bombus*— (See also BUMBLEBEES.)
separatus, notes, Rec. IX, 965.
vagens, notes, Rec. IX, 965.
- Bombyces, larvæ, Rec. VIII, 418.
- Bombycid caterpillars, Rec. VII, 700.
- Bombycid moths of America, monograph, Rec. VIII, 147.
- Bombycidae—
feeding habits, Rec. XII, 272.
list, Rec. II, 746.
- Bombylids, parasitic, on grasshoppers, Rec. V, 1100.
- Bombyx*—
mori, notes, Rec. IV, 839; VII, 880.
(See also SILKWORM.)
neustria, notes, Rec. VIII, 809; IX, 965.
pini, injuries in Russian Poland, Rec. X, 872.
rubi, notes, Rec. X, 65.
trifolii, notes, Rec. IX, 74.
- Bonavis beans, analyses, Rec. IX, 129; XI, 249.
- Bone—
adulteration, Rec. III, 257; IX, 36, 237.
analyses, Bul. 2, II, 46; Rec. I, 80; II, 101, 127, 154, 232, 237, 278, 282, 481, 581, 659, 665; III, 6, 162, 227, 287, 290, 292, 299, 444, 463, 471, 523, 530, 536, 622, 764, 791; IV, 25, 26, 27, 337, 902, 903; VI, 134, 202, 287, 401, 402, 522, 706, 797, 798, 980; V, 164, 288, 290, 487, 737, 777, 1103; VII, 111, 112, 195, 294, 295, 380, 668, 670, 757, 854, 940; VIII, 117, 300, 389, 392, 563, 767, 871; IX, 336, 436, 919, 934, 1044; X, 36, 428, 717; XI, 528, 1026; XII, 129, 225, 378, 626.
and meat, analyses, Rec. III, 162; XI, 138.

Bone—Continued.

and potash—

analyses, *Rec. IX*, 538; *X*, 230; *XI*, 719.cost and valuation, *Bul. 2, I*, 40.and wood ash fertilizer, analyses, *Rec. X*, 230.as a fertilizer, *Rec. IV*, 248; *V*, 390, 866; *VI*, 626; *VII*, 581.an egg producer, *Rec. IX*, 377; *X*, 676; *XI*, 881.ash analyses, *Rec. II*, 280; *III*, 6, 168, 299; *IV*, 25; *VI*, 396, 797; *XI*, 138.ash as a fertilizer, *Rec. IV*, 863.

availability—

for grass, *Rec. XI*, 722; *XII*, 527.Hungarian grass, *Rec. XII*, 528.of nitrogen as affected by lime, *Rec. XII*, 528.beetle, notes, *Rec. VIII*, 908.boiled in potash, analyses, *Rec. III*, 162.char screenings, analyses, *Rec. V*, 621.coal, analyses, *Rec. II*, 581.codfish, analyses, *Rec. V*, 621.determination of phosphoric acid in, *Rec. V*, 1009; *X*, 310.

dissolved—

analyses, *Bul. 2, I*, 121; *2, II*, 40; *Rec.**II*, 280, 282; *III*, 299, 523, 530; *IV*, 902;*V*, 288, 290, 571, 575, 777; *IX*, 919; *X*, 919;*XI*, 39, 314, 438, 917, 1026.for grasses and pasture lands, *Rec. V*, 710.ruta-bagas, *Rec. V*, 713.dust, analyses, *Rec. II*, 142.for chickens, *Rec. XI*, 573.tobacco, *Rec. V*, 866.ground, *Rec. IX*, 436.

ground—

analyses, *Bul. 2, I*, 121; *Rec. I*, 16, 259;*V*, 571; *VI*, 797, 798, 980; *VII*, 111; *VIII*,300, 877, 966; *IX*, 339, 636, 825, 939; *X*,426, 428, 919, 1031; *XI*, 138, 528, 830; *XII*,

131, 587, 877, 907, 933.

availability for grass, *Rec. XII*, 527.availability of phosphoric acid in, *Rec. VIII*, 878.decomposition by micro-organisms, *Rec. XII*, 325.detection of ground horn, etc., in, *Rec. V*, 466.fat content as affecting fertilizing value, *Rec. IV*, 518.fertilizing value of phosphoric acid, *Rec. XII*, 323.fineness as affecting composition, *Rec. III*, 463.fineness as affecting fertilizing value, *Rec. II*, 282; *IV*, 518.for calves, *Rec. XI*, 80.gelatinous substances as affecting fertilizing value, *Rec. IV*, 518.manuring with, *Rec. VI*, 203.solubility of phosphoric acid, *Rec. IV*, 222.use in New Jersey, *Rec. III*, 523.

manures—

analyses, *Bul. 2, II*, 39, 40; *Rec. I*, 17; *II*, 227, 730; *III*, 8; *IX*, 538; *X*, 230; *XI*, 719; *XII*, 931.cost and valuation, *Bul. 2, I*, 40.

Bone meal—

adulteration, *Rec. IX*, 36, 237.analyses, *Bul. 2, I*, 22, 190; *Rec. II*, 71, 275, 278; *IV*, 378, 449, 465, 783; *V*, 164, 290, 291, 621, 861; *VIII*, 485; *X*, 1033.and Thomas slag for oats, *Rec. VI*, 519.application, *Rec. VI*, 631.available phosphoric acid in, *Rec. V*, 288; *VI*, 624; *VII*, 293; *IX*, 434.citrate soluble phosphoric acid in, *Rec. VII*, 293; *IX*, 337.degelatinized, for meadows and clover fields, *Rec. X*, 432.detection of adulteration, *Rec. V*, 466; *VI*, 134.

determination—

of nitrogen and phosphoric acid in, *Rec. V*, 802.phosphoric acid, *Rec. V*, 1009; *X*, 310.dissolved, effectiveness, *Rec. VIII*, 764.effect on character of milk, *Rec. VI*, 926.fertilizing value, *Rec. VI*, 713; *VII*, 293, 939; *VIII*, 767; *IX*, 236; *X*, 835.for grasses and pasture lands, *Rec. V*, 710.oats, *Rec. VI*, 519.pigs, *Rec. II*, 301, 427, 438.turnips, *Rec. V*, 709, 713.grading, *Rec. III*, 185.methods of analysis, *Rec. IV*, 692.preparation on the farm, *Rec. VII*, 670.solubility of phosphoric acid in, *Rec. IV*, 222, 378; *VI*, 398.value of phosphoric acid in, *Rec. IX*, 826.v. acid phosphate for cotton, *Rec. IX*, 127; *X*, 140.Bone phosphate, method for distinguishing from mineral phosphate, *Rec. X*, 219.Bone rendering refuse, analyses, *Rec. III*, 8.

Bone—

scrap, analyses, *Rec. VII*, 111.spavin, pathology, causes and treatment, *Rec. III*, 807.steamed and ground for cereals, *Rec. V*, 346, 703.

superphosphate—

adulteration, *Rec. X*, 219, 532, 1003.detection of adulteration, *Rec. XI*, 104; *XII*, 907.tankage, analyses, *Rec. VI*, 396.

v. animal meal—

for chickens, *Rec. XI*, 573.egg production, *Rec. IX*, 377; *X*, 676; *XI*, 881.

Boneblack—

analyses, *Rec. I*, 16; *II*, 101, 280, 481; *III*, 168, 299; *IV*, 25; *XI*, 39.cost of phosphoric acid from, *Bul. 2, I*, 39.

dissolved—

analyses, *Rec. II*, 101, 581, 659; *III*, 8, 162, 444, 530, 764; *IV*, 26, 27, 902; *V*, 164, 487, 777; *VI*, 202, 287, 396, 767; *VII*, 111, 195, 294, 668, 854; *VIII*, 389, 563, 767, 877, 966; *IX*, 538, 934; *X*, 36, 230, 426, 919; *XI*, 719, 1026; *XII*, 129, 907, 933.availability of phosphoric acid in, *Rec. IV*, 132.for carnations, *Rec. III*, 290.corn, *Rec. II*, 484; *V*, 573, 778, 779, 862.

Boneblack—Continued.

dissolved—continued.

for cowpeas, Rec. V, 779.

grass, Rec. V, 579.

oats, Rec. IV, 130; V, 575.

potatoes, Rec. II, 485; III, 159; V, 573.

soy beans, Rec. V, 779.

sweet potatoes, Rec. V, 394.

tomatoes, Rec. IV, 827; V, 393.

wheat, Rec. IV, 27; V, 495.

spent, analyses, Rec. XI, 1026.

Bones—

and teeth, mineral matters, Rec. V, 654.

experiments in fermenting—

with ashes, Bul. 2, II, 103.

lime, Bul. 2, II, 103.

fluorin in, Rec. IV, 387; V, 822.

of normal and diseased horses, analyses, Rec.

XII, 96,

utilization, Rec. VI, 979.

value in agriculture, Rec. VI, 882.

Boneset analyses, Rec. III, 629.

Bonn, Germany, Experiment Station at, reports,

Rec. III, 256, 751.

"Bon-Sag," in Africa, Rec. VI, 151.

Bont tick—

notes, Rec. XI, 763.

transmission of heart water, Rec. XII, 491.

Book louse, notes, Rec. IX, 64.

Book of the dairy, Rec. VIII, 835.

Bookkeeping, farm, Rec. VII, 259.

Books—

for an agricultural library, Rec. XII, 698.

reference, how to obtain and use, Rec. II, 267.

preservation in the Tropics, Rec. VI, 152.

Bookworms—

in America, Rec. VIII, 507.

notes, Rec. VII, 882.

ravages, Rec. V, 328.

Syrian, Rec. V, 901.

Boophilus bovis. (See CATTLE TICK.)

Boracic acid— (See BORIC ACID.)

Borate of lime, analyses, Rec. VI, 794.

Borax—

analyses, Rec. XII, 214, 279.

and water as adulterants of coffee, Rec. XII, 612.

as a preservative—

of food, Rec. XII, 976.

milk, Rec. II, 331.

effect on nutrition, Rec. IX, 782

excretion by rabbits, Rec. XI, 778.

for standardizing normal acid, Rec. VII, 745.

in butter, detection, Rec. VIII, 378, 562.

lye for strawberry rust, Rec. VIII, 499.

preservatives, use in cream gathering, Rec. VIII, 830.

separation from boric acid in preserved meat Rec. XI, 618.

solution, reaction of sugars with, Rec. V, 647.

Bordeaux mixture—

age of, Rec. VII, 312.

albuminous, Rec. X, 457.

analyses, Rec. IV, 56.

Bordeaux mixture—Continued.

and arsenate of lead for sweet potato flea-beetle, Rec. XI, 62.

color tests, Rec. VI, 910.

copper sulphate for plum brown rot, Rec. IX, 647.

eau celeste for shothole fungus of plums, Rec. VI, 646.

formalin for seed potatoes, Rec. X, 1058.

kerosene in combination, Rec. XII, 1065.

lye for plum brown rot, Rec. IX, 647.

and London purple—

for apple scab, Rec. VII, 786,

Colorado potato beetle and potato rot, Rec. I, 169.

striped cucumber beetle, Rec. VII, 685.

on small fruits, Rec. V, 793.

and molasses for spraying, Rec. VIII, 608.

and Paris green—

as a fungicide, Rec. VII, 310; VIII, 68.

for apple enemies, Rec. VIII, 61, 412.

apple pests, Rec. VII, 305.

apple scab, Rec. V, 1077; VI, 741; VII, 879; XI, 258, 356.

apples, Rec. IV, 561.

cankerworms, Rec. VII, 126.

codling moth, Rec. VI, 741; VII, 126, 224, 879; XI, 258.

fruit-bark beetle, Rec. VI, 1004.

green-fruit worms, Rec. VIII, 803.

peach rot, Rec. IX, 147.

potatoes, Rec. III, 101, 480.

pimpls potatoes, Rec. IX, 157.

rose bugs, Rec. V, 792.

shothole fungus of plums, Rec. III, 621.

and potash-Bordeaux—

for cucumber anthracnose, Rec. X, 446.

cucumber mildew, Rec. X, 446.

and resin-lime mixture for cabbage plusia, Rec. X, 270.

"Rubin" for grape diseases, Rec. VII, 876.

salt for grape black rot, Rec. XI, 262.

tobacco decoction, Rec. XII, 581.

whale-oil soap for San José scale, Rec. VIII, 148.

as a fungicide, Bul. 2, II, 87; Rec. II, 406, 482; III, 864; V, 62, 309; VI, 307, 558; VII, 965; IX, 360; X, 266.

as an insecticide, Rec. II, 63, III, 864; VI, 235; IX, 467; X, 273.

chemistry of, Rec. IV, 563.

chemistry and physical properties, Rec. VIII, 315.

comparison of different forms, Rec. IX, 846.

effect on—

foliage, Rec. III, 174; IX, 961; X, 264.

fruit development, Rec. XI, 262.

fungi and algæ, Rec. VIII, 316.

potato plants, Rec. VI, 234.

potatoes, yield and starch content, Rec. VIII, 122; XII, 140.

Puccinia coronata, Rec. VII, 225.

silkworms, Rec. VI, 442.

Spirogyra longatus, Rec. VII, 225.

vitality of seed corn, Rec. IV, 472.

ferrocyanid test for, Rec. VI, 437, 560; VII, 312.

Bordeaux mixture—Continued.

- for apple blight, Rec. VIII, 499.
 apple fungus disease, Rec. X, 262.
 apple pests, Rec. VI, 317; VII, 305; VIII, 61, 412.
 apple powdery mildew, Rec. I, 170.
 apple rot, Rec. IV, 659; IX, 1062.
 apple rust, Rec. III, 217.
 apple scab, Rec. I, 294; II, 408, 586, 633; III, 892; IV, 500, 660, 729; V, 61, 683, 877, 1077; VI, 741, 999; VII, 224, 786, 879; VIII, 140, 705; IX, 147, 764, 961; X, 1057; XI, 258, 356, 468.
 apple scab—
 and apple skin blotch, Rec. VIII, 133.
 bitter rot, Rec. V, 1076.
 apple tree edema, Rec. V, 880.
 asparagus rust, Rec. XII, 354.
 banana blight, Rec. V, 354.
 bean anthracnose, Rec. IV, 558, 559; IX, 655, 1061.
 beet leaf spot, Rec. VI, 906; IX, 958; X, 156, 447; XI, 163.
 brown rot of stone fruits, Rec. III, 860.
 cabbage plusia, Rec. X, 270.
 California vine disease, Rec. IV, 499.
 cankerworms, Rec. VII, 126.
 carnation fairy ring disease, Rec. IX, 958.
 carnation rust, Rec. V, 309; VI, 234; IX, 958.
 celery blight, Rec. VIII, 895; IX, 458.
 celery diseases, Rec. IV, 926.
Cercospora ribis and *Cylindrosporium padi*, Rec. IV, 400.
 cherry powdery mildew, Rec. IV, 169.
 cherry leaf spot, Rec. III, 10, 217; IV, 169; V, 59; VII, 787.
 chrysanthemum rust, Rec. IX, 325; XI, 947.
 codling moth, Rec. IV, 417; VI, 741; VII, 126, 224, 879; XI, 258.
 Colorado potato beetle, Rec. I, 169; X, 270.
 corn smut, Rec. III, 287.
 cracking of pears and apples, Rec. X, 561.
 cucumber anthracnose, Rec. VIII, 895; IX, 324; X, 446.
 cucumber downy mildew, Rec. VIII, 895; IX, 249; X, 362, 446; XI, 357.
 cucumber flea-beetle, Rec. VI, 652.
 currant powdery mildew, Rec. IV, 169.
 currant spot disease, Rec. III, 217; IV, 169; V, 59; VII, 787.
 eggplant disease, Rec. IX, 655.
 eggplant leaf spot and fruit rot, Rec. VIII, 894.
 fruit bark beetle, Rec. VI, 1004.
 fungus diseases of ornamental plants, Rec. VII, 692.
Fusicladium eriobotryæ, Rec. X, 764.
 grain rusts, Rec. IV, 955.
 grape anthracnose, Rec. III, 10; IV, 551.
 grape black rot, Bul. 2, II, 135; Rec. I, 196, 294; II, 25, 322, 409, 586, 633, 713; III, 10, 781; IV, 167, 500; VIII, 236, 239, 500; IX, 1060; XI, 262, 758.
 grape diseases, Rec. IV, 55, 729; VII, 876.
 grape mildew, Bul. 2, II, 135; Rec. II, 409; IV, 652.

Bordeaux mixture—Continued.

- for grape peronospora, Rec. X, 364.
 grape ripe rot, Rec. IV, 551.
 grapes, Rec. V, 878.
 green fruit worms, Rec. VIII, 803.
 hollyhock leaf spot, Rec. X, 448.
 iris disease, Rec. X, 860.
 lesser vine chafer, Rec. V, 403.
 lichens on pear trees, Rec. IV, 955.
 Lima bean mildew, Rec. V, 878; X, 261.
 nursery stock, Rec. IV, 500, 955; VI, 302, 432.
 orchid disease, Rec. IX, 362.
 pea diseases, Rec. IX, 656.
 peach blight and rot, Rec. VII, 786.
 peach diseases, Rec. V, 684; X, 559.
 peach leaf curl, Rec. VIII, 801; IX, 262; X, 156; XI, 164, 260, 357.
 peach rot, Rec. IV, 835; V, 873; IX, 147.
 peach rust, Bul. 2, I, 188.
 pear blight, Rec. I, 170; III, 144; IV, 168, 170, 500; V, 986; VI, 555; VIII, 499.
 pear leaf scab, Rec. IV, 500.
 pear leaf spot, Rec. X, 450.
 pear scab, Rec. III, 892; V, 61, 877, 986; VI, 999; VII, 125, 220, 223; VIII, 705; X, 1057.
 plum and cherry black knot, Rec. VI, 909.
 plum black knot, Rec. V, 309.
 plum brown rot, Rec. V, 876; VII, 138; IX, 647.
 plum fruit rot, Rec. VII, 138.
 plum leaf curl, Rec. IX, 569.
 plum leaf rust, Bul. 2, I, 188; Rec. I, 169.
 plum leaf spot, Rec. III, 10; VII, 138; X, 265.
 plum lichens, Rec. XI, 321.
 potato blight, Rec. II, 293, 633; III, 10; IV, 55, 170, 250, 471, 561, 729, 928; V, 59, 307, 591, 629, 787, 789, 978, 988; VII, 136, 140, 311, 409, 589; VIII, 138, 234, 239; IX, 764; XI, 355.
 potato diseases, Rec. IV, 818; V, 1004; VI, 305, 435; IX, 764, 765; X, 865; XI, 168.
 potato rot, Rec. I, 291; III, 101, 688, 892; IV, 471, 593, 594, 864, 928, 971; V, 60, 61, 307, 425, 426, 878; VI, 62, 435; VIII, 137, 237, 605, 606, 607; IX, 251, 458, 852.
 potato scab, Rec. III, 623; IV, 560, 926; V, 789; VI, 228, 410; VIII, 60, 137, 799; IX, 1059.
 quince black rot, Rec. IV, 929; V, 878.
 quince diseases, Rec. IV, 658.
 quince leaf spot, Rec. I, 294; III, 10, 770; IV, 500, 929.
 quince scab, Rec. V, 878.
 raspberry anthracnose, Rec. IV, 51; V, 60; VII, 137, 404, 694; IX, 60, 763.
 rose bugs, Rec. V, 792.
 rose rust, Rec. V, 879.
 shot-hole fungus of plums, Rec. III, 621; IV, 837; VI, 646.
 snowdrop disease, Rec. IX, 457.
 sooty disease of apples and pears, Rec. IX, 764.
 stinking smut of wheat, Rec. III, 226, 286.
 strawberry leaf blight, Rec. VII, 767.
 strawberry rust, Rec. III, 10.

Bordeaux mixture—Continued.

- for striped cucumber beetle, Rec. VII, 685.
- sweet potato flea-beetle, Rec. XI, 62.
- tomato anthracnose, Rec. X, 445.
- tomato black rot, Rec. V, 790.
- tomato blight, Rec. III, 702; V, 790; IX, 446; X, 351, 445.
- tomato diseases, Rec. III, 92; X, 1053.
- tomato rot, Rec. I, 169.
- walnut bacteriosis, Rec. XI, 261.
- water lily blight, Rec. IX, 657.
- watermelon anthracnose, Rec. V, 788.
- wheat rust, Rec. III, 286, 788.
- wheat smut, Rec. II, 221.

- improved formula, Rec. VI, 557.
- in hot climates, Rec. XI, 166.
- injury to pears, Rec. XI, 950.
- manufacture, Rec. XI, 556.
- notes, Rec. VI, 560; XII, 62, 361.
- preparation and use, Rec. II, 13, 408, 491, 609; III, 11, 23, 847; IV, 55, 169, 569, 659, 838, 927; V, 206, 592, 629, 684; VI, 558, 910; VII, 140, 231, 788, 965; VIII, 54, 240, 606, 993, 996; IX, 249; X, 60; XI, 174, 262, 371, 757, 861, 950, 957, 1061; XII, 574, 964, 975.
- preparation by mechanical methods, Rec. XII, 1065.
- spraying experiments, Rec. IV, 43.
- tumeric paper as a test for, Rec. X, 157.
- v. acetate of copper for grape peronospora, Rec. X, 264.
- with arsenites, Rec. III, 174.
- London purple, Rec. II, 217; III, 96.
- Paris green, Rec. II, 217; III, 96, 621; VI, 53.

Borer—

- flat-headed—
 - notes, Rec. I, 45; V, 310, 498, 685; VI, 740.
 - remedies, Rec. VI, 990.
- root, notes, Rec. V, 498, 499.
- round-headed, notes, Rec. I, 45; V, 310, 498, 685.

Borers—

- as a cause of forest destruction, Rec. VIII, 808.
- method of preventing injury, Rec. II, 269.
- notes, Rec. III, 327; IV, 840.
- parasites, Rec. XII, 469.
- remedies, Rec. VIII, 613; XI, 1066.
- stock, notes, Rec. III, 46.

Boric acid—

- and borates—
 - detection, Rec. XII, 214.
 - detection in food products, Rec. XII, 213.
- as an antiseptic, Rec. IV, 74.
- detection, Rec. XI, 312; XII, 680, 822.
- determination, Rec. VII, 745; VIII, 537, 742, 861; IX, 621, 808; XI, 112, 510, 618, 1007.
- determination, Jorgensen method, Rec. XI, 618.
- distribution, Rec. VII, 643.
- effect on—
 - animal body, Rec. XI, 962.
 - germination, Rec. III, 579, 635.
 - nutrition, Rec. IX, 782.
 - peptic digestion, Rec. IV, 870.
- for decomposition of silicates, Rec. VII, 552; VIII, 24.

Boric acid—Continued.

- for increasing acidity of milk, Rec. VIII, 436.
- preservation of—
 - butter, Rec. VII, 808.
 - milk, Rec. IV, 519, 988; V, 1047; XI, 582.
- in beer and hops, Rec. IV, 616.
- butter, determination, Rec. XI, 510.
- hop plant, Rec. V, 539, 619.
- natural products, Rec. V, 126.
- toxic effects, Rec. X, 896.

Borna horse disease—

- cause, Rec. XI, 588.
- studies, Rec. XII, 793.

Boron—

- compounds, preparation and use, Rec. V, 684.
- determination, Rec. VII, 364.
- food preservatives, Rec. XI, 184.
- in chick-pea, Rec. III, 925.
- German iris, Rec. III, 925.

Borrage officinalis as affected by carbon dioxide, Rec. XII, 110.

Bos—

- europæus*, studies, Rec. X, 584.
- gaurus*, notes, Rec. IX, 1030.
- sondaicus*, notes, Rec. IX, 1030.

Bosnian Trappists' cheese, composition, Rec. III, 832; V, 1060.

Bostrichidae, revision, Rec. IX, 74.

Bostrichus lineatus, notes, Rec. VIII, 711.

Botanic garden, Rec. III, 592.

Botanic garden—

- as an aid to agriculture, Rec. XI, 1099.
- of the University of California, Rec. V, 563; XII, 912.

Botanic gardens of Natal, Rec. XII, 220.

Botanical—

- institutions of Java and Ceylon, Rec. XI, 999.
- investigations—
 - at Halle Station, Rec. V, 382.
 - nonlocal conditions in, Rec. VII, 179.
- laboratory, Hamburg, contributions, Rec. IV, 875.
- microtechnique, methods, Rec. X, 826.
- monograph, prize for, Rec. V, 825.
- station at Pavia, Rec. IV, 237.
- studies of Minnesota, Rec. V, 659.
- study of acetic acid bacteria, Rec. V, 650.
- survey—
 - of Cœur d'Alene Mountains, Rec. IX, 327.
 - Mississippi, Rec. II, 658.

Botanical work—

- of J. Vesque, Rec. VII, 370.
- the U. S. Government, Rec. VII, 95.
- Botanist of Nebraska State Board of Agriculture, report, Rec. X, 928.

Botany—

- agricultural—
 - manual, Rec. X, 611.
 - text-book, Rec. XII, 719.
- anatomical and physiological, Rec. VII, 95.
- and chemistry of the peanut, Rec. V, 728.
- forestry, report, Rec. X, 121.
- as related to herbaria, Rec. VII, 94, 188.
- at American Association for Advancement of Science, Rec. X, 611.
- Australian economic, bibliography, Rec. IV, 620.

Botany—Continued.

- compendium of, Rec. VII, 840; X, 223.
- cryptogamic, studies, Rec. II, 419, 501.
- descriptive, Rec. VI, 617.
- elementary text-book, Rec. XII, 719.
- importance of mycophagy in, Rec. IX, 318.
- in Germany, progress in, Rec. VII, 94.
- laboratory manual, Rec. X, 23.
- manual, Rec. VIII, 291.
- metamorphosis in, Rec. VI, 736.
- morphological, Rec. VIII, 381.
- nomenclature in, Rec. VI, 617.
- of cultivated wheat, Rec. IV, 633.
- Death Valley Expedition, Rec. VI, 113.
- Ohio, bibliography, Rec. V, 230.
- West Virginia, Rec. III, 46.
- Yakutat Bay, Alaska, Rec. VII, 751.
- physiological—
 - apparatus, Rec. VI, 787.
 - in agricultural colleges, Rec. VIII, 555.
 - place in the curriculum, Rec. VIII, 555.
 - position in horticultural education, Rec. VIII, 556.
 - report of section, Rec. III, 140.
 - report on, Rec. IV, 402.
 - scientific, Rec. X, 121.
 - sundry investigations, Rec. V, 879.
 - systematic—
 - and economic, Rec. VII, 179.
 - handbook, Rec. VII, 19.
 - of Pomaceæ, Rec. IX, 227.
 - treatise, Rec. XII, 614.
 - text-books, Rec. VI, 278, 507, 874; VII, 19, 924; VIII, 28; X, 611; XI, 429, 1014; XII, 719.

Bot—

- in head of sheep, Rec. XI, 191.
- man-infesting, Rec. IX, 670.
- on kittens, notes, Rec. IV, 173.

Botflies—

- notes, Rec. XII, 69, 272.
- of cottontail rabbit, Rec. IX, 469.
- on horses, Rec. IV, 75.
- man, Rec. IV, 373.

Botfly—

- notes, Rec. II, 169; III, 792, 811; VII, 44, 231, 316, 877; IX, 253; XI, 263.

larvæ—

- distinguishing from glanders, Rec. XI, 896.
- in man, Rec. III, 812.
- of cattle, Rec. X, 568.
- sheep, notes, Rec. VIII, 612; IX, 994; XI, 263, 272.

Bothrioccephalus—

- n. sp., notes, Rec. IX, 294.
- zschokkei, notes, Rec. IX, 1092.

Bothriotania chilensis, n. sp., notes, Rec. IX, 1093.

Botryomycosis in man and animals, Rec. X, 497.

Botryosphaeria arundinariae, notes, Rec. XI, 725.

Botryosporium diffusum, notes, Rec. XII, 464, 966.

Botryosporium, parasitism, Rec. XII, 966.

Botrytis—

- and Sclerotinia, studies, Rec. XII, 764.
- disease of Chinese primulas, Rec. X, 155.
- parasitic on insects, Rec. V, 438.
- parasitism of a species, Rec. V, 1100.

Botrytis—

cinerea—

- as a hothouse pest, Rec. XI, 360.
- notes, Rec. V, 348, 449, 879; VI, 147, 311; VIII, 995; IX, 961; X, 763.
- on grapes, Rec. V, 351; VI, 147.
- grape shoots, Rec. IX, 148.
- potatoes, Rec. V, 263.
- Prunus cerasus, Rec. X, 155.
- web disease produced by, Rec. V, 1031.

douglassii—

- as an enemy to pine-tree culture, Rec. VIII, 995.
- notes, Rec. VII, 224.

fascicularis, notes, Rec. III, 337.

galanthina, notes, Rec. IX, 457; XII, 263.

longibrachiatæ, notes, Rec. III, 775; V, 879.

pæoniæ—

- notes, Rec. X, 971.
- n. sp., notes, Rec. IX, 457.
- parasitica, notes, Rec. III, 307.
- sp. causing drop of lettuce, Rec. XI, 552.
- sp., notes, Rec. III, 162; X, 648.
- sp., treatment, Rec. XI, 552.

tenella—

- for destruction of grubs, Rec. V, 101, 822; VI, 151, 317, 633, 917.
- repression of cankerworms, Rec. V, 257.
- notes, Rec. V, 721.

vulgaris—

- notes, Rec. IV, 472; V, 192, 309; VI, 234; VII, 141; VIII, 290; XI, 164.
- on peonies, Rec. X, 1049.
- treatment, Rec. XII, 856.

Bottle—

- capped, for easily decomposed and strongly odorous bodies, Rec. VIII, 862.
- for testing skim milk and buttermilk, Rec. IX, 885.

Bottles, sterilizing, stoppers for, Rec. V, 1051.

"Bottom disease" of horses in South Dakota, Rec. V, 608.

Bottom grass, Colorado, notes, Rec. VII, 116.

Botulism, epidemic, Rec. IX, 692.

Bouillon cultures of bacteria as affected by metals, Rec. XI, 123.

Bouncing bet—

- notes, Rec. V, 398, 399.
- root system, Rec. IV, 45.

Bounties on noxious animals, Rec. IX, 528.

Bourgon, notes, Rec. XII, 1014.

Bouteloua— (See also GRAMA.)

- arenosa, notes, Rec. II, 259.
- aristoides, notes, Rec. II, 259; III, 280.
- burkei, notes, Rec. II, 259.
- curtipendula, notes, Rec. VIII, 306, 780; X, 147, 343.
- criopoda, notes, Rec. II, 259; III, 280; VIII, 306.
- harvardii, notes, Rec. II, 259; III, 280.
- hirsuta, notes, Rec. II, 259, 321; III, 280; VIII, 780; X, 343.
- humboldtiana, notes, Rec. II, 259.
- juncifolia, notes, Rec. VII, 396.
- oligostachya, notes, Rec. II, 259, 321; III, 280; V, 679; VIII, 306; X, 147, 343.
- polystachya, notes, Rec. VIII, 306.

Bouteloua—Continued.

- prostrata*, notes, Rec. II, 259.
racemosa, notes, Rec. II, 259, 321; III, 280; VI, 581.
ramosa, notes, Rec. II, 559.
spp., notes, Rec. VI, 403.
stricta, notes, Rec. II, 259.
trifida, notes, Rec. II, 259.

Bouvardias—

- culture, Rec. IX, 140.
 nematodes on, Rec. III, 308.

Bovidae in Idaho, Rec. III, 184.

Bovine distemper, notes, Rec. XI, 1091.

Bovine malaria in Turkey, Rec. XI, 593.

Box culture of farm plants, Rec. II, 125.

Box elder— (See also ACER and NEGUNDO.) analyses, Rec. XI, 314.

- chaitophorus, notes, Rec. II, 673.
 cost of planting, Rec. XI, 853; XII, 559.
 distribution, Rec. III, 507.
Gracilaria, notes, Rec. V, 101.
 grafting—

- on honey locusts, Rec. XI, 850.
 peaches and walnuts, Rec. XI, 850.

leaf roller—

- notes, Rec. IV, 58; VIII, 146.
 remedies, Rec. IX, 151.

notes, Rec. I, 315; II, 512, 663, 741; III, 521; IV, 655, 829; V, 884; VI, 993; VIII, 604; XII, 559.

on the plains, Rec. VII, 774.

plant bug, notes, Bul. 2, II, 33; Rec. I, 120; VIII, 146; IX, 767; X, 169, 766; XII, 664.

plant louse, notes, Rec. I, 120.

rate of growth, Rec. IV, 45.

trees at Illincis Station, Rec. V, 303.

twig borer, notes, Rec. II, 663.

twig gall moth, Rec. VIII, 801.

Box—

- notes, Rec. IV, 655.
 timber, yellow, durability, Rec. VII, 960.
 yellow, notes, Rec. XI, 1052.

Boxwood, ash analyses, Rec. XII,

"Boxyde" for bleaching molasses, Rec. III, 390.

Brabant clover, notes, Rec. X, 348.

Brachmia spp., notes Rec. XII, 69.*Brachyleptus*, Palearctic species, Rec. VIII, 614.*Brachyrhynchus granulatus*, notes, Rec. X, 62.*Brachyscelidae*, new species, Rec. VIII, 70.*Brachys*—

- aerosa*, notes, Rec. X, 168.
seruginosa, notes, Rec. X, 168.

Brachysoma codeti, life history, Rec. XI, 1065.*Brachyspora pisi*, n. sp., on young peas, Rec. X, 155.*Brachysporium canadense*, notes, Rec. III, 810.*Brachystola magna*, notes, Rec. IX, 370.*Brachytarsus alternatus*, notes, Rec. VIII, 610; IX, 68.*Brachytrypes achatinus*, notes, Rec. VII, 593.*Bracon*—

- anthonomi* on *Anthonomus signatus*, Rec. IV, 669.
apicatus, notes, Rec. IX, 364.
 n. sp., notes, Rec. III, 46.
rugator, notes, Rec. II, 293.
spp., notes, Rec. IV, 852.

Draconidae—

bred in West Virginia, Rec. III, 811.

revision of European species, Rec. VIII, 712.

usefulness in domain of forestry, Rec. VIII, 808.

Bradley's superior meat meal, analyses, Rec. XI, 279.

Brain—

and spinal cord, micro-organisms and bacterial poisons, Rec. X, 497.

fever, infectious, in horses, Rec. VII, 712.

of bee, studies, Rec. VIII, 809.

nurslings, as affected by lecithin content of milk, Rec. XII, 1077.

Brake, notes, Rec. IV, 47, 472.

Brakes, analyses, Rec. II, 667.

Bramble flea louse, notes, Rec. IX, 73.

Bran. (See WHEAT BRAN, etc.)

Branch and twig borer, description and treatment, Rec. III, 889.

Branch ivy, notes, Rec. X, 516.

Brandy—

- apple, manufacture, Rec. XII, 245.
 composition and analysis, Rec. VI, 775.
 examination, Rec. VII, 184.
 from whey, Rec. V, 1067.

Brassica—*alba*, notes, Rec. IX, 143, 1055.

(See also MUSTARD, WHITE.)

arvensis, root system, Rec. IV, 46.

(See also BRASSICA SINAPISTRUM.)

campestris, notes, Rec. II, 677; IV, 47; VI, 822; IX, 41.*campestris glauca*, notes, Rec. V, 1030.*cheiranthus*, cabbage grafted on, Rec. V, 1089.*chinensis*, notes, Rec. VI, 217.*glauca*, notes, Rec. V, 1022.*japonica*, notes, Rec. VI, 217.*juncea*—

- culture experiments in India, Rec. V, 333, 1021.

notes, Rec. VI, 217; VIII, 410.

lanceolata, notes, Rec. V, 1021, 1022.*napiiformis*, notes, Rec. VI, 217.*napus*, notes, Rec. VI, 294.*nigra*— (See also MUSTARD, BLACK.)

- notes, Rec. III, 308, 598; IX, 143, 1055.

root system, Rec. IV, 46.

pe-tsai, notes, Rec. VI, 217.*rapa*, notes, Rec. III, 598.*rapa annua*, notes, Rec. V, 844.*sinapistrum*— (See also MUSTARD, WILD.)

- notes, Rec. IV, 167, 699; VI, 145; VIII, 234; IX, 143, 1055.

root system, Rec. IV, 46.

sp., seed coats, Rec. VI, 196.

spp., notes, Rec. IV, 472; XI, 354.

spp., spotting of seed, Rec. VII, 767.

Brazil nuts—

food value, Rec. XII, 78.

globulins of, Rec. IV, 934.

Brazilian clover, notes, Bul. 2, I, 189.

Brazilian corn—

analyses, Rec. III, 16, 147.

culture experiments, Bul. 2, I, 190; Bul. 2, II, 124; Rec. I, 89; II, 10, 165, 337; III, 696.

varieties, Rec. I, 143.

Brazilian sponge, analyses, Rec. VIII, 520.
 Brazos River flood of 1899, Rec. XI, 620, 698.

Bread—

acidity, studies, Rec. V, 727.
 analyses, Rec. IX, 778; X, 875; XI, 481; XII, 676.
 adulteration, Rec. XI, 278.
 ancient Egyptian, Rec. IX, 581.
 and biscuit, experiments with, Rec. IV, 389, 694.
 and bread making, Rec. XII, 279.
 and bread making—
 at the Paris Exposition, Rec. XII, 876.
 handbook, Rec. IX, 274.
 studies, Rec. XI, 767.
 and butter, digestibility, Rec. XII, 177.
 flour, fat determinations, Rec. V, 439, 647.
 grain, prices, 1881 to 1895, Rec. VII, 813.
 meat consumption in Missouri, Rec. VIII, 509.
 milk, digestibility, Rec. XI, 959.
 "antispire" system, Rec. X, 582; XI, 478.
 as affected by digestive fluids, Rec. VII, 336.
 bacteria in, Rec. VII, 793.
 bacteriology, Rec. IX, 627; XI, 565, 883; XII, 280.
 beetle, notes, Rec. VII, 413, 700.
 brown—
 color, Rec. VII, 63.
 digestibility, Rec. X, 772.
 carbohydrates, Rec. VIII, 664.
 composition—
 and cost in New Jersey, Rec. IX, 78.
 cost in Oregon, Rec. XII, 476.
 cost, variation in, Rec. X, 174.
 as affected by mildew, Rec. IV, 986.
 determination of ergot in, Rec. VII, 425, 523.
 digestibility, Rec. IV, 986; VII, 794; IX, 778, 781, 872; X, 181, 375, 381, 772; XI, 183, 479, 661, 768, 959, 960; XII, 177, 1077.
 digestibility—
 and nutritive value, Rec. XII, 776.
 as affected by aluminum compounds, Rec. VI, 238.
 distribution of nitrogenous and mineral matter in, Rec. VII, 793.
 dry baked, Rec. VII, 803.
 eaters' catechism, Rec. VIII, 719.
 flavor, Rec. VII, 794.
 from different kinds of flour, Rec. XI, 970.
 flour and corn meal, Rec. XI, 1075.
 grains without grinding, Rec. VI, 468.
 lupine seed meal, Rec. VI, 67.
 lupine seed meal, analyses, Rec. VI, 68.
 old process and roller process flour, food value, Rec. X, 79.
 spoiled rye, examination, Rec. VI, 663.
 graham—
 analyses, Rec. IV, 39.
 food value, Rec. VI, 163, 467.
 handling, Rec. X, 481.
 homemade, economy of, Rec. XI, 970.
 impurities, Rec. XI, 79.
 injury by prolonged fermentation, Rec. IX, 778.
 integral whole wheat—
 analyses, Rec. X, 381.
 digestibility, Rec. X, 381.
 making, Rec. IX, 777, 785.

Bread—Continued.

making—

carbonic acid *v.* yeast, Rec. V, 733.
 chemistry, Rec. VIII, 1014.
 handbook, Rec. IX, 274.
 losses, Rec. XI, 768; XII, 776.
 losses of nutrients in baking, Rec. X, 476.
 Rieti wheat for, Rec. VIII, 155.
 Schweitzer system, Rec. XII, 979.
 skim milk *v.* water, Rec. V, 654; XI, 960.
 special process, Rec. XII, 177.
 studies, Rec. XI, 767.
 temperature of oven, Rec. V, 733.
 text-book, Rec. VII, 890.
 use of skim milk in, Rec. XII, 298, 776.
 with rye and wheat flour, Rec. IV, 694.
 methods of analysis, Rec. IV, 221, 389, 692; V, 127, 520.
 military, new French, analyses, Rec. VIII, 521.
 molding, Rec. VII, 425.
 monograph on, Rec. VII, 803.
 native or truffle, Rec. V, 820.
 of Italian peasants, composition, Rec. X, 78.
 physical nature, Rec. VI, 468.
 Portuguese—
 composition, Rec. X, 181.
 digestibility, Rec. X, 181.
 question—
 discussion, Rec. V, 654.
 investigations, Rec. IV, 694.
 rich in albuminoids, made with aleuronat, Rec. V, 733.
 rosy, studies, Rec. XI, 672.
 rye, digestibility, Rec. IX, 872; X, 375.
 skim milk—
 assimilation, Rec. IX, 981.
 digestibility, Rec. VII, 794.
 "slimy" notes, Rec. XI, 565, 882; XII, 280.
 studies, Rec. VII, 616; VIII, 521.
 temperature of interior of hot, Rec. V, 733.
 variation in cost and composition, Rec. X, 174.
 water *v.* skim milk, analyses, Rec. XI, 478.
 wheat, Rec. X, 481, 582.
 wheat—

analyses, Rec. IV, 59.
 and whole meal, analyses, Rec. XI, 661.
 "antispire" system of making, Rec. XI, 478.
 digestibility, Rec. IX, 781, 872.
v. rye bread, Rec. XI, 183.
 white, digestibility, Rec. X, 375, 772.
 whole-wheat *v.* ordinary, Rec. VIII, 330.

Breadfruit—

analyses, Rec. XII, 1076.
 notes, Rec. VI, 636.

Breakfast foods, Rec. XI, 599; XII, 979.

Breakfast foods, analyses, Rec. X, 475, 875; XI, 314; XII, 69, 273.

Breda, Netherlands, Experiment Station at, Rec. V, 671.

Breeding—

and selection, Rec. IX, 175.
 animals, Rec. V, 540.
 animals—
 heredity, Rec. VII, 64.
 regulation of sex, Rec. X, 522.
 plant. (See CROSS FERTILIZATION, CROSSING, SELECTION, etc.)
 principles, Rec. VI, 332.

Breeding—Continued.

- * suggested experiments in, Rec. IV, 457.

(See also different kinds of plants and animals.)

Breeds—

- of cows. (See COWS, BREED TESTS.)
- hens. (See HENS, BREEDS.)
- pigs. (See PIGS, BREEDS.)
- steers. (See STEERS, TEST OF BREEDS.)

Breeze flies, notes, Rec. XII, 272.

Bremen, Germany, Experiment Station at, report, Rec. III, 527.

Bremia lactuæ, notes, Rec. IV, 51; V, 399; X, 155.

Bremsergometer, description, Rec. XI, 777.

Breslau, Germany—

Chemical Institute of University, Rec. IX, 1099.

Experiment Station at, report, Rec. III, 257.

Brewers' grains—

- analyses, Rec. I, 15; III, 13, 296, 301, 616, 878; IV, 64, 745; VI, 110; VII, 702; XII, 169, 281.
- annual production, Rec. IV, 745.
- cake, analyses, Rec. VII, 708.
- changes in drying, Rec. IV, 90, 519.
- digestibility, Bul. 2, I, 132; Rec. IV, 975; VI, 318.

dried—

- analyses, Rec. II, 295; III, 720, 878; V, 195, 410; VI, 133, 842; VIII, 719; IX, 873; X, 474; XI, 777; XII, 378, 877.

and charred, digestibility of protein in, Rec. III, 750.

artificial digestion of albuminoids in, Rec. IV, 90.

as a substitute for hay, Rec. X, 1078.

description, Rec. XI, 971.

digestibility, Rec. V, 1032; IX, 476.

effect on milk production, Rec. V, 970, 1033.

for cows, Rec. X, 589.

horses, Rec. III, 750.

preparation, Rec. IV, 90, 745.

study, Rec. III, 832.

v. linseed meal for beef production, Rec. IX, 166.

fertilizing constituents, Bul. 2, I, 133.

for cattle, Rec. IX, 175.

cows, Rec. IV, 66; VI, 160.

horses, Rec. III, 750.

spent, analyses, Bul. 2, I, 83; Rec. IX, 939.

v. oats for horses, Rec. IV, 742; V, 540.

wet—

analysis, Rec. V, 410.

and ground meat, digestion experiments, Rec. V, 1032.

Brewery—

feed, analyses, Rec. VIII, 561, 623.

kiln dust, analyses, Rec. XII, 225.

refuse, analyses, Rec. VII, 294.

residue v. peanut meal for milch cows, Rec. XI, 81.

Brewing—

and distilling industries, enzymes used in, Rec. X, 122.

industry, micro-organisms, Rec. IX, 1095.

preparation of hops, Rec. IX, 442.

principles and practice, Rec. IX, 696.

Briar-root industry in Italy, Rec. XII, 795.

Briars, analyses, Rec. III, 629.

Brick—

analyses, Rec. II, 744.

paving for country roads, Rec. VIII, 1033.

walls, efflorescence, Rec. VI, 503.

Bridges—

construction, Rec. XII, 398.

timber trestle, Rec. VII, 869.

Brie cheese. (See CHEESE, BRIE.)

Brine—

analyses, Rec. VI, 794.

preserving butter in, Rec. IV, 223; V, 1053.

test for potatoes, Rec. VI, 889.

Brinjal affected by *Rhopalosiphum dianthi*, Rec. XI, 1063.

British Board of Agriculture, Journal, Rec. VI, 255.

British Botanical Association, meeting, Rec. VII, 370.

British India, fauna of, Rec. VII, 20.

Brizopyrum spicatum, notes, Rec. II, 486.

Broad leaf hay, analyses, Rec. XII, 586.

Broad-leaved grass, analyses, Rec. V, 64.

Broad-leaved kelp, notes, Rec. IV, 715.

Broad-necked prionus. (See PRIONUS LATICOLLIS.)

Broad ribbonweed, notes, Rec. IV, 715.

Broad-winged hawk, notes, Rec. VI, 694.

Brocade moth, amputating, Rec. IX, 855.

Broccoli—

culture experiments, Rec. VIII, 313.

notes, Rec. X, 962.

varieties, Rec. VII, 405.

Brochymena annulata, notes, Rec. VIII, 505; XI, 954.

Brodiea, notes, Rec. VIII, 470.

Bromalbumin, effect on microbes, Rec. IX, 627.

Brome grass— (See also BROMUS.)

analyses, Rec. II, 329; V, 596; VI, 569; VIII, 520; IX, 786; XII, 1077.

Austrian. (See BROME GRASS, SMOOTH.)

awnless. (See BROME GRASS, SMOOTH.)

culture experiments, Rec. VI, 294; IX, 741.

meadow—

as a forage plant, Rec. III, 28.

culture experiments, Rec. VI, 531.

notes, Rec. II, 69, 321, 329, 601, 658; V, 870, 871; XII, 936.

root system, Rec. IV, 46.

rough, analyses, Rec. VI, 404.

rust, treatment, Rec. VII, 224.

Schrader's—

adaptation, Rec. III, 595.

analyses, Rec. VI, 404.

culture experiments, Rec. VIII, 687; X, 244, 245.

notes, Rec. II, 601; V, 577; VI, 721.

seed, notes, Rec. XII, 251.

short awned, analyses, Rec. II, 326.

smooth—

adaptation, Rec. III, 595.

analyses, Rec. VI, 404; X, 72, 876; XI, 882, 883, 1031; XII, 442.

culture, Rec. IX, 830.

culture experiments, Rec. VI, 296, 531, 807; VII, 116, 120, 122, 209, 296; VIII, 46, 401, 687; IX, 741; X, 244, 245, 340; XI, 43, 240, 1030; XII, 430.

hay, analyses, Rec. XI, 873.

Brome grass—Continued.

smooth—continued.

notes, Rec. II, 69, 329, 601, 610; III, 51, 595; IV, 248; V, 577, 625, 679; VI, 415, 721; VII, 296; VIII, 308; IX, 830; X, 244, 245, 340, 846, 866; XI, 339, 926, 1033; XII, 134, 332, 436, 538, 629, 630, 898.

root system, Rec. XII, 517.

varieties, Rec. XI, 251.

smut, Rec. VIII, 507.

upright, analyses, Rec. VI, 722.

Bromelia sylvestris, notes, Rec. V, 94; VII, 954.

Bromeliad hybrids, Rec. XII, 613.

Bromeliads, germination, Rec. VII, 188.

Bromin—

absorption of fats, Rec. VI, 964.

for determination of proteids and gelatinoids, Rec. IX, 520.

heat value of oils and fats, Rec. VII, 652.

in organic compounds, detection, Rec. VII, 18.

in saline waters, determination, Rec. X, 315.

separation, Rec. VIII, 954.

Bromus— (See also BROME GRASS.)

arvensis—

analyses, Rec. IX, 268.

smut of, Rec. V, 821.

breviaristatus, notes, Rec. II, 321, 329.

ciliatus, notes, Rec. II, 321; VI, 404; XII, 436.

erectus—

analysis, Rec. VI, 722.

notes, Rec. X, 121.

inermis. (See BROME GRASS, SMOOTH.)

interruptus, notes, Rec. VIII, 289.

kalmii porteri, notes, Rec. II, 321.

mexicana, notes, Rec. II, 321.

mollis, notes, Rec. III, 598; V, 910.

orcuttianus, notes, Rec. IV, 951.

patulus, structural characters, Rec. IX, 1027.

pratensis—

analyses, Rec. VIII, 520.

notes, Rec. III, 28.

pumpellianus, notes, Rec. XII, 615.

schraderi— (See also BROME GRASS, SCHRA-
DER'S.)

culture experiments, Rec. III, 860.

notes, Rec. II, 69; III, 51; VI, 294.

secalinus, (See CHESS.)

spp., anatomical study, Rec. IX, 1027.

sterilis, notes, Rec. III, 598; X, 223.

sucksdorfii, notes, Rec. IV, 951.

tectorum—

notes, Rec. XII, 436.

root system, Rec. IV, 46.

unioloides, notes, Bul. 2, I, 189; Rec. II, 321, 601, 658; III, 595, 890; IV, 248; V, 578; VI, 721; VIII, 401; X, 244, 245, 343; XII, 436, 442.

(See also RESCUE GRASS.)

Bromus, revision of North American species, Rec. XII, 615.

Bronchitis—

infectious, Rec. VII, 72.

verminous, Rec. VII, 24; VIII, 428.

verminous. etiology and treatment, Rec. XII, 395.

Broncho-pneumonia—

infantile, due to bacilli, Rec. IX, 193.

of cattle, Rec. X, 893.

puerperal origin, Rec. XII, 293.

sheep, Rec. XI, 696.

Bronze orange bug, notes, Rec. X, 769.

Bronzed grackle as an enemy of the locust, Bul. 2, II, 93.

Brood frames, description, Rec. IX, 674.

Brooders, construction, Rec. III, 399.

Broom corn—

analyses, Rec. V, 64.

culture, Rec. VIII, 307; IX, 241, 643; X, 1039; XI, 240, 442; XII, 1037, 1038.

culture experiments, Rec. IV, 346; VII, 120, 121, 122; VIII, 308; IX, 41.

evergreen—

analyses, Rec. XII, 378.

culture experiments, Rec. VI, 984.

for forage, Rec. XII, 332.

grain smut, studies, Rec. XII, 357.

Japan, culture experiments, Rec. VI, 984.

millet—

analyses, Rec. X, 946; XII, 71.

culture experiments, Rec. V, 178.

notes, Rec. VI, 714; X, 629.

seed, analyses, Rec. X, 428.

smut, notes, Rec. IX, 145.

varieties, Rec. III, 703, 802; IV, 411; VI, 44, 418; VII, 210.

Broom rape—

of hemp and tobacco, Rec. IX, 1024.

hemp, injury, Rec. II, 22.

tobacco, injury, Rec. II, 22.

root system, Rec. IV, 47.

species, Rec. II, 22.

Broom sedge—

analyses, Bul. 2, I, 108; Rec. III, 40, 629; V, 64.

notes, Rec. III, 893; V, 663.

Broto as food, Rec. VIII, 81.

Broussonetia papyrifera, notes, Rec. X, 254.

Brown durra, culture experiments, Rec. VII, 209; VIII, 308.

Brown lace-winged fly, notes, Rec. VI, 741.

Brown ptinus in mills, notes, Bul. 2, II, 92.

Brown rot, notes, Rec. VIII, 999.

Brown-tail caterpillar, destruction by birds, Rec. XI, 953.

Brown-tail moth—

destruction by birds, Rec. XII, 366.

distribution, Rec. XI, 1100.

extermination in Massachusetts, Rec. XII, 368.

food plants, Rec. IX, 460.

notes, Rec. X, 871; XII, 271, 367.

remedies, Rec. IX, 462; X, 1059.

Brown thrasher, food habits, Rec. VIII, 751.

Brown top grass, notes, Rec. X, 343.

Brownian movement, Rec. VII, 277.

Bruchophagus—

(*Eurytoma*) *funebis*, notes, Rec. IX, 662.

funebis, notes, Rec. X, 1059; XI, 954.

Bruchus—

affinis, notes, Rec. XI, 562, 657.

chinensis, notes, Rec. VIII, 610; IX, 854; XI, 470.

Bruchus—Continued.*fabae*—

life history, Rec. IV, 82.

notes, Rec. VI, 65.

flavimanus, notes, Rec. IX, 468.*lentis*, notes, Rec. XI, 470.*obsoletus*—

life history, Rec. IV, 82.

notes, Bul. 2, II, 118; Rec. II, 342, 654, 659; III, 792.

obtectus. (See BEAN WEEVIL.)*pisorum*. (See PEA WEEVIL.)*quadri-maculatus*, notes, Rec. V, 410; VI, 438;

VII, 43; VIII, 503, 610; IX, 854; XI, 470.

rufimanus, notes, Rec. VI, 438; XI, 470.

spp., food plants, Rec. IV, 688.

Brulure of flax, Rec. X, 652.

Brunella vulgaris—

notes, Rec. III, 598; V, 399.

root system, Rec. IV, 46.

Brunswick, Germany, Experiment Station, report, Rec. III, 656.

Brush and stone drains, construction, Rec. VI, 848.

Brushwood—

digestibility, Rec. IV, 865; V, 227.

feeding value, Rec. III, 493, 499.

Brussels, Belgium, Experiment Station, report, Rec. XI, 497.

Brussels sprouts—

canned, analyses, Rec. V, 220.

culture experiments, Rec. VIII, 313.

notes, Rec. X, 547, 962; XI, 1047.

varieties, Rec. V, 189; VII, 405.

Bryobia mite, notes, Rec. XII, 365.

Bryobia—*nobilis*, notes, Rec. VI, 742.*pratensis*, notes, Rec. II, 258; VI, 837; VII, 143, 967; IX, 63, 260, 261, 571, 767; X, 661; XI, 562, 652; XII, 575, 974.

(See also CLOVER MITE.)

pruni (?), notes, Rec. VII, 700.*ribis*, notes, Rec. VI, 742; VII, 811.

sp., infesting dwellings, Rec. I, 41.

Bryophyta of West Virginia, Rec. IV, 642.

Bryotropha solanella, notes, Rec. XI, 273.*Bryum calophyllum*, n. sp., notes, Rec. IV, 374.

Bubonic plague—

in animals, Rec. XII, 690.

treatment, Rec. XI, 91.

Bucculatrix, notes, Rec. V, 310.

Bucculatrix—*canadensisella*—

description, Rec. IV, 372.

notes, Rec. V, 631.

pomifoliella, notes, Rec. II, 420; III, 313; V, 310; VI, 740; XII, 68.*Buchloe dactyloides*, notes, Rec. I, 320; II, 259, 321, III, 280; VII, 371; VIII, 780.

(See also BUFFALO GRASS.)

Buck plantain, notes, Rec. III, 893.

Buckeye— (See also ÆSCULUS.)

California, analyses, Rec. VIII, 701.

chestnut, notes, Rec. IV, 654.

culture experiments, Rec. VIII, 687.

Ohio, notes, Rec. III, 521.

red, notes, Rec. X, 516.

Buckthorn, notes, Rec. III, 521; IV, 656.

Buckwheat—

analyses, Rec. V, 64, 171, 596; VI, 294; VII, 396, 891; VIII, 884; XI, 724; XII, 70.

as affected by atmospheric electricity, Rec. VI, 537.

as an adulterant of flour, Rec. XI, 482.

ash analyses, Rec. X, 873; XI, 38.

attacked by *Fusicladium fagopyri*, n. sp., Rec. X, 155.

bran, analyses, Rec. III, 878; IV, 174; IX, 479; X, 876; XII, 378.

climbing—

analyses, Rec. III, 629.

root system, Rec. IV, 46.

crop statistics, Rec. III, 183, 326; IV, 288, 431; V, 328; VI, 582.

culture—

and uses, Rec. XI, 240, 724.

experiments, Rec. II, 6, 7, 395, 580, 643, 637; III, 85, 300; IV, 39, 346, 645, 661, 825;

V, 171; VI, 294, 296; VII, 295; VIII, 308.

studies, Rec. XI, 724.

digestibility, Rec. VII, 796.

experiments with Alinit, Rec. X, 1012.

feeds, analyses, Rec. IX, 479; XII, 169, 378.

fertilizer requirements, Rec. VI, 883; XI, 38, 724.

flour—

adulteration, Rec. IX, 1078.

analyses, Rec. IV, 59, 935; VII, 336; VIII, 1003; IX, 479; X, 475; XII, 79.

prepared, analyses, Rec. X, 475.

Quaker self-raising, analyses, Rec. VII, 336.

germination tests, Bul. 2, I, 30.

hulls, analyses, Rec. II, 589; III, 162, 299; IV, 174; V, 538; IX, 479, 809; XII, 378.

insects affecting, Rec. VIII, 507.

Japanese—

analyses, Rec. II, 667; III, 159; V, 171.

culture experiments, Bul. 2, I, 190; Rec. II, 643, 667; IV, 39, 661; V, 171; VI, 982; VII, 295.

for bees, Rec. II, 496; V, 102.

notes, Rec. VI, 212, 294.

Kangra, notes, Rec. IV, 614.

meal, analyses, Rec. IX, 479.

middlings—

analyses, Rec. I, 15; III, 157, 375, 878; IV, 174; VI, 110; X, 275, XI, 971.

feeding value, Rec. XII, 284.

for cows, Rec. X, 589.

notes, Rec. I, 212; V, 577, 612, 623, 871, 910; XI, 833.

root development, Rec. XI, 725.

seed—

absorption of water by, Rec. XI, 1056.

lecithin content, Rec. V, 803.

shorts, analyses, Rec. IV, 174.

silver-hull—

analyses, Rec. V, 171.

culture experiments, Rec. IV, 39, 661; V, 171; VII, 295.

starch and rice starch, distinction between, Rec. V, 1101.

value for green manuring, Rec. III, 927.

Buckwheat—Continued.

varieties, Rec. II, 70, 156, 395; III, 85, 802; IV, 411; VI, 44, 216, 416, 984; VII, 120; X, 240; XII, 229, 328.

v. wheat for pigs, Rec. VIII, 921.

wild, analyses, Rec. IV, 733.

yield—

and value, Rec. II, 608.

in 1892, Rec. IV, 500.

the United States, Rec. III, 414.

Bud development—

as affected by whitewashing trees, Rec. XII, 665.

of deciduous trees, Rec. VI, 279.

Bud formation on leaves, Rec. X, 418.

Bud grafting, directions for, Rec. VII, 505.

Bud mallow, eradication, Rec. IX, 142.

Bud moth—

eye-spotted—

notes, Bul. 2, I, 91; Bul. 2, II, 58; Rec. II, 654; III, 396; IV, 417, 437, 839, 930; VII, 143; VIII, 999; IX, 767, 856; X, 766, 867; XII, 68, 1062.

remedies, Rec. IV, 932.

notes, Bul. 2, I, 91; Rec. II, 654; VI, 635; VIII, 999, 1003; IX, 967; X, 766.

remedies, Rec. VIII, 144; IX, 767; X, 867.

Bud selection in plant breeding, Rec. XI, 1047.

Bud variation—

effect on plant forms, Rec. X, 613.

in Concord grape, Rec. VIII, 290.

plants, Rec. VI, 786; XI, 424.

Bud worm, notes, Rec. III, 313; VII, 143, 201; X, 1069.

Budapest, Hungary, Chemical Institute, report, Rec. VIII, 166.

Budding—

grapes, Rec. VII, 308, 309; VIII, 985; XII, 852.

peaches, notes, Rec. VI, 221.

pears, Rec. VIII, 791.

trees in winter, new method, Rec. VI, 547.

winter, notes, Rec. XI, 937.

Buddleia utahensis, notes, Rec. VI, 114.

Buds—

and shoots of the grapevine, effect of cold on, Rec. V, 1099.

and stipules, studies, Rec. IX, 624.

biology of, Rec. IV, 517.

of pear, hazel, and maple, lecithin content, Rec. V, 803.

tomatoes, dropping, Rec. V, 790.

undescribed form on silver fir, Rec. V, 1099.

winter growth, Rec. X, 417; XI, 221.

winterkilling, Rec. XI, 343.

Buffalo berry—

notes, Rec. III, 230, 522; IV, 656; V, 584, 586; VI, 267, 728.

varieties, Rec. VI, 55.

Buffalo bur—

eradication, Rec. XI, 749.

notes, Rec. III, 217; V, 306; VI, 224, 551; VII, 135, 689; VIII, 794, 866; IX, 143; XI, 354.

root system, Rec. IV, 47.

Buffalo carpet beetle, notes, Rec. I, 224.

Buffalo feed, analyses, Rec. III, 13, 301.

Buffalo gnat—

injury by, Rec. IV, 285.

Buffalo gnat—Continued.

new, Rec. IX, 159.

notes, Rec. IX, 253; X, 568; XI, 272.

Southern, Rec. XI, 272.

Buffalo grass— (See also *BUCHLOE DACTYLOIDES* and *BULBILIS DACTYLOIDES*.)

analyses, Rec. VI, 403.

false, analyses, Rec. VI, 403.

flowering, Rec. VII, 371.

notes, Rec. I, 320; VIII, 780; X, 147, 343; XII, 337, 936.

Buffalo milk. (See MILK, BUFFALOES'.)

Buffalo moth—

notes, Rec. VI, 561; VIII, 906.

remedies, Rec. VI, 561.

Buffalo pea. (See *ASTRAGALUS CARYOCARPUS*.)

Buffalo tree hopper—

notes, Rec. II, 169; III, 176; VI, 315, 562; IX, 262, 574, 675, 858; X, 164; XII, 664, 898.

on apples, Rec. V, 1104.

Buffaloes of Assam, Rec. VII, 64.

Bufo—

boreas nelsoni, n. sp., notes, Rec. V, 90.

vulgaris, notes, Rec. XI, 429.

Bug Death—

analyses, Rec. XII, 67, 273.

as an insecticide, Rec. IX, 372.

Bugong moth, remedies, Rec. XI, 766.

Bugloss, notes, Rec. V, 398.

Buhach as an insecticide, Rec. II, 63; III, 54.

Bulb worm of wheat, Rec. III, 860.

Bulbilis dactyloides, notes, Rec. X, 147, 343.

(See also BUFFALO GRASS.)

Bulbophyllum, cultivated species, Rec. X, 640.

Bulbous plants—

culture, Rec. IX, 756.

in North Carolina, Rec. VI, 143.

ornamental, fungus diseases, Rec. VI, 826.

Bulbs—

carbohydrate reserve material, Rec. X, 1007

culture—

in America, Rec. X, 552.

Bermuda, Rec. XI, 52.

Holland, Rec. XI, 938.

North Carolina, Rec. V, 1085.

principles and practice, Rec. X, 552.

diseases on the Pacific Coast, Rec. XI, 463.

farming in the Southwest, Rec. VII, 688.

flowering, culture in—

North Carolina, Rec. VI, 547.

Washington, Rec. XI, 453.

notes, Rec. X, 640.

of orchids, Rec. IX, 227.

preservation, Rec. XII, 54.

Bull grass—

analyses, Rec. II, 491; V, 64.

notes, Rec. XII, 760.

Bull nettle, notes, Rec. XI, 354.

Bull stalls, description, Rec. II, 589.

Bulletins—

and weather maps, publication, Rec. V, 1086.

Farmers', Rec. II, 2; XII, 118.

numbering of, Rec. IV, 401.

of U. S. National Museum, Rec. V, 740.

present and prospective field of, Rec. IV, 401.

station—

cooperation in, Rec. II, 267.

- Bulletins—Continued.
 station—continued.
 editorial notes, Rec. II, 1.
 postal regulations, Rec. II, 84, 263.
- Bulls, development, Rec. X, 83.
- Bumble flower beetle—
 notes, Rec. IX, 69.
 remedies, Rec. IX, 371.
- Bumblebees—
 for fertilizing clover, Rec. IV, 84.
 injuring leaves, Rec. VII, 410.
 in New South Wales, Rec. VI, 837.
 notes, Rec. IX, 662.
- Bumblefoot of poultry, notes, Rec. XII, 894.
- Bunch grass—
 awned, analyses, Rec. V, 64.
 large, notes, Rec. VI, 97.
 notes, Rec. VIII, 306, 331.
- Bunsen burner—
 new, Rec. VII, 921.
 new support, Rec. IX, 621.
- Bunt. (*See* STINKING SMUT.)
- Bupalus piniarius*, notes, Rec. X, 65.
- Buprestid beetle, notes, Rec. X, 1059.
- Buprestidae from Sumatra and Brazil, Rec. IX, 74.
- Buprestis divaricatus*, description and treatment, Rec. II, 889.
- Bur clover. (*See* CLOVER, BUR.)
- Bur grass—
 notes, Rec. III, 308; IV, 699; VI, 732; X, 343.
 root system, Rec. IV, 47.
 small, notes, Rec. VII, 839.
- Bur medic, notes, Rec. VIII, 689; XII, 253.
- Bur, notes, Rec. V, 529.
- Bur oak, notes, Rec. III, 521.
- Bur reed, analyses, Rec. VI, 404.
- Burdock. (*See also* ARCTIUM.)
 analyses, Rec. III, 629.
 as a vegetable, Rec. VIII, 984.
 common, for fiber, Rec. VI, 207.
 eradication, Rec. XI, 749.
 giant, notes, Rec. VII, 38.
 law regarding, Rec. I, 323.
 moth, notes, Rec. XII, 862.
 notes, Rec. III, 308, 893; IV, 47, 591; V, 398, 529; VI, 145.
 root system, Rec. IV, 45.
- Bureau of Standards, National, notes, Rec. XII, 900.
- Burette—
 automatic, Rec. V, 728, 817; X, 821; XI, 511.
 automatic apparatus for filling, Rec. IV, 516; V, 538.
 and pipettes for laboratories, Rec. V, 251.
 clamp, convenient, Rec. VI, 273.
 description, Rec. X, 21.
 float, Rec. XI, 313.
 for gas analysis, Rec. XII, 516.
 holder, Rec. XI, 313.
 new form, Rec. IV, 388, 576; IX, 621.
 rapid titration, Rec. V, 251.
- Burgundy mixture as a fungicide, Rec. VII, 39.
- Burner for sodium light, Rec. VII, 18.
- Burnet—
 analyses, Rec. VI, 404, 569, 883; VII, 155.
 as a forage plant, Rec. III, 51.
 culture experiments, Rec. VI, 405, 531; IX, 41; X, 430.
- Burns as a cause of visceral lesions, Rec. IX, 95.
- Burnt earth in seed germination, Rec. IV, 876.
- Burrill disease of corn and cornstalk disease of cattle, Rec. VI, 665.
- Burrillia globulifera*, notes, Rec. VIII, 412.
- Burros, distribution of galactase in milk, Rec. XI, 580.
- Bursera—
aptera, notes, Rec. VIII, 108.
morelense, notes, Rec. VIII, 108.
trijuga, notes, Rec. VIII, 108.
- Bush beans. (*See* BEANS, BUSH.)
- Bush fruits. (*See* FRUITS, BUSH.)
- Bush lespedeza, notes, Rec. VI, 97.
- Bussey Institution, reopening of chemical laboratory, Rec. VIII, 94.
- Butter—
 abnormal, Rec. IV, 317; V, 954; VII, 156; IX, 494.
 acetic acid tests for, Rec. IV, 317.
 acids in, Rec. III, 832; V, 954.
 adulterated, analysis, Rec. V, 954.
 adulteration, Rec. IV, 616, 873; V, 129, 260, 450, 1033; VII, 256, 650; X, 821; XI, 82, 87, 312, 811, 888, 1007.
 adulteration—
 calorimeter tests, Rec. VII, 558.
 detection, Rec. VI, 954; VII, 255, 649; VIII, 104, 203.
 methods of, Rec. X, 791.
 prevention, Rec. V, 655.
 analyses, *Bul.* 2, I, 37, 43, 191; *Bul.* 2, II, 32, 94; Rec. II, 202, 315, 334, 582, 631, 658; III, 6, 44, 86, 401, 603, 766, 832; IV, 59, 75, 93, 486, 492, 519, 569, 750, 774, 784, 944; V, 109, 207, 655, 727, 815, 951; VI, 274, 337, 503, 578; VII, 161, 272, 336, 463, 835, 897; VIII, 25, 174, 286, 377, 442, 719; IX, 323, 990, 991, 1024; X, 281, 285, 295, 790, 891; XI, 314, 389, 681, 770, 883, 905, 977, 984; XII, 79, 181, 279, 280, 593, 680, 1083.
 analysis methods, Rec. II, 90, 465; III, 489, 750, 929; IV, 66, 95, 775; V, 104, 109, 126, 258, 260, 727, 1097; VI, 273; 612; VII, 17; X, 118; XI, 111, 311; XII, 1005, 1007.
 analysis methods—
 Haenle method, Rec. V, 127.
 Hübl iodine addition method, Rec. VII, 17.
 König and Hart method, Rec. VI, 373.
 Kreis method, Rec. IV, 983; V, 104.
 Raoult method for molecular weights, Rec. V, 727.
 Reichert-Meissl method, Rec. IV, 316, 613, 781, 983; V, 104, 126, 922; VII, 18; X, 515.
 oleorefractometer, Rec. II, 533; VI, 274.
 refractometer, Rec. VI, 274; VII, 273; X, 17; XI, 618; XII, 516.
 use of barium hydrate, Rec. V, 252.
 viscometric method, Rec. VII, 255.
 and butter substitutes, Rec. VIII, 829.
 and oleomargarin— (*See also* OLEOMARGARIN.)
 analysis, Rec. VI, 273.
 characteristics, Rec. IX, 322.
 detection by Brulle's reagent, Rec. IV, 781.
 determination of water, Rec. X, 514.
 emulsifying properties, Rec. VIII, 203.
 manual, Rec. XI, 390.

Butter—Continued.

- and oleomargarin—continued.
 - method of distinguishing between, Rec. V, 260, 727, 922; IX, 420; XI, 112.
 - refractometer for, Rec. VII, 272, 556.
 - sulphuric acid tests for, Rec. V, 126.
- and vegetable oils, chemistry of, Rec. VII, 364.
- aroma, Rec. IX, 796.
- artificial, transmission of disease by, Rec. IV, 317; V, 1046.
- as a carrier of disease, Rec. VII, 339.
- association of Ontario, report, Rec. X, 189; XI, 788.
- Australian, analyses, Rec. VII, 339.
- bacteria—
 - cholera in, Rec. III, 423.
 - examination for, Rec. IX, 887; XI, 887, 977.
 - in, Rec. II, 396; III, 261, 422; V, 208; X, 388, 995; XI, 688.
- bacteriology, Rec. VII, 429, 992.
- behavior toward coloring matters, Rec. III, 751; IV, 97.
- bitter taste caused by magnesia, Rec. XI, 587.
- boiled, Rec. X, 891.
- brine in, Rec. V, 722.
- butyric acid in, Rec. V, 954.
- chemistry—
 - and bacteriology, handbook, Rec. XI, 489.
 - of, Rec. VII, 364.
- churnability as affected by food, Rec. III, 86; IX, 884.
- churning. (*See* CHURNING AND CREAM.)
- churning process, Rec. V, 928; IX, 290.
- color as affected by salt, Rec. XII, 182, 593.
- coloring—
 - artificial, Rec. IX, 689.
 - matter in, Rec. V, 922; VI, 15.
 - plants for, Rec. V, 1066.
- colors, examination, Rec. IX, 92, 988; XII, 591.
- composition as affected by—
 - acidity of cream, Rec. VI, 938.
 - feeding oils, Rec. V, 974.
 - food, Bul. 2, I, 160; Rec. IX, 292; XI, 312.
 - long keeping, Rec. VI, 168.
 - starch, Rec. IV, 663.
- composition—
 - at different seasons, Rec. IV, 93; X, 886.
 - of "serum difference," Rec. IX, 179.
- cost of production as compared with meat, Rec. XII, 481.
- cream—
 - and milk relations, Rec. IV, 270.
 - required for one pound, Rec. II, 593; IV, 270.
- creamery—
 - analyses, Rec. II, 631; IV, 492; IX, 286.
 - fat content, Bul. 2, I, 214.
 - v. dairy, Rec. V, 721, 722; VI, 670.
- cryoscopy, Rec. XI, 618.
- cultures, commercial, Rec. VIII, 261, 441; XI, 83, 490, 589.
- dairying, Rec. V, 930.
- Danish, Rec. V, 721; XII, 289.
- Danish—
 - analyses Rec. XII, 784.
 - export, Rec. XII, 91.
 - export, water content, Rec. IV, 690.
 - treatment, Rec. V, 609.

Butter—Continued.

- detection of—
 - borax in, Rec. VIII, 378, 562.
 - cocoa butter, Rec. II, 533; XII, 108.
 - coloring matter in, Rec. VI, 15.
 - cotton-seed oil, Rec. XI, 811.
 - foreign fats in, Rec. IV, 96, 317; V, 109, 1027; VI, 868; VII, 649; IX, 722.
 - oleomargarin in, Rec. II, 533; III, 832, 929; IV, 96, 616, 781; V, 126, 260, 440, 727, 922; VI, 189, 372; VIII, 201, 459, 466; IX, 420; XI, 112, 814, 888; XII, 108, 611.
 - sesame oil, Rec. IX, 887, 1024; XI, 1007.
 - vegetable oils, Rec. VI, 271.
- determination of—
 - boracic acid, Rec. XI, 510.
 - fat in, Rec. VI, 108, 272; VII, 918; X, 90; XII, 108.
 - hardness, Rec. III, 86; X, 687.
 - melting point, Rec. III, 469; IV, 569.
 - rancidity from volatile fatty acids, Rec. XI, 584.
 - solids and fat, Rec. XI, 995.
 - volatile fatty acids, Rec. IV, 389, 663, 664; V, 922; VI, 271; VII, 17, 186, 460; VIII, 199; IX, 722; X, 515, 919.
 - water, Rec. II, 619; X, 413, 514.
- digestibility, Rec. V, 1101; XI, 376, 659, 660.
- digestibility of protein in, Bul. 2, II, 61.
- Dutch—
 - chemical study, Rec. XII, 880.
 - volatile fatty acids in, Rec. V, 955.
- effect of—
 - air, light, and moisture, Rec. V, 1023; XI, 584.
 - centrifugal drying, Rec. X, 289.
 - feeding barley, Rec. V, 724.
 - feeding coconut and almond oils, Rec. X, 686.
 - feeding corn, Rec. XI, 781.
 - feeding cotton-seed and sesame-oil cake, Rec. VIII, 161; X, 685; XI, 231.
 - feeding cotton seed and cotton-seed meal, Rec. II, 296; III, 6; VI, 324; XII, 435, 798.
 - feeding cotton seed, steamed and raw, Rec. V, 974.
 - feeding gluten meal, Rec. IX, 1583.
 - feeding oil cake, Rec. IV, 450.
 - feeding olein, Rec. IV, 634.
 - feeding peat-molasses, Rec. VIII, 440.
 - feeding potatoes and roots, Rec. V, 974; IX, 1082.
 - feeding ruta-bagas, Rec. V, 724; XII, 440.
 - feeding sesame cake, Rec. X, 586, 587, 685, 686; XI, 281.
 - feeding sugar-beet pulp, Rec. V, 724; XI, 781.
 - feeding turnips, Rec. V, 724; X, 287.
 - food, Bul. 2, I, 160; Rec. IV, 93, 317, 389, 569, 606, 662; V, 440, 596, 642, 688, 724, 973, 974; VI, 941; VII, 150, 155, 218, 331, 705, 708, 979; VIII, 86, 822; IX, 293, 292, 490, 884; XI, 312, 385, 781, 888, 974, 1080; XII, 285, 288.
 - heating milk, Rec. I, 135.
 - heating milk or cream to 150° F., Rec. IV, 447.
 - machine v. hand milking, Rec. X, 288.

Butter—Continued.

effect of—continued.

- manner of milking, Rec. XII, 185.
- molds, Rec. XI, 977; XII, 882.
- pasteurization, Rec. IX, 92, 492; X, 889, 996; XI, 85.
- period of lactation, Rec. IV, 93; X, 89, 288.
- season, Rec. IV, 93; XI, 888.
- size of fat globules of milk, Rec. V, 1022; VI, 939.
- stearin on, Rec. IV, 664; V, 974.
- water, Rec. V, 1053.

(See also BUTTER, PRODUCTION.)

exhibitions—

- Danish, Rec. V, 541; VII, 626; VIII, 172; X, 1096; XI, 85.
- Finnish, Rec. IX, 92, 689; XI, 188.
- in Massachusetts, Rec. VI, 337.
- Vermont, Rec. I, 130.
- Swedish, Rec. V, 541, 824; VI, 169, 250, 483, 580, 938; IX, 92, 184, 689, 1089; X, 491, 593, 1996; XI, 87, 681.

exportation—

- to China, Rec. VIII, 536.
- the Orient, Rec. XII, 89.

exports, Rec. XI, 976, 984.

exports—

- Danish, Rec. VII, 812; IX, 389; X, 91; XI, 87.
- Finnish, Rec. VI, 85; VII, 812; VIII, 635; IX, 389.
- German, Rec. IX, 389.
- Norwegian, Rec. V, 936; VI, 172.

extractors, tests, Rec. III, 693, 690, 891; IV,

751; V, 260; VI, 246, 477; VII, 714; XI, 796.

factor for converting fat into, Rec. VII, 177.

factories. (See CREAMERIES.)

fat—

- analyses, Rec. III, 154; VII, 708.
- chemical investigation, Rec. V, 727; VII, 364; XII, 681.
- composition as affected by food, Rec. XI, 974.
- constants as affected by oil cakes, Rec. XII, 181.
- constants, physical and chemical, Rec. XI, 308, 615.
- Danish, chemical study, Rec. XII, 681.
- examination, Rec. VIII, 173; IX, 493.
- fuel value, Rec. III, 386.
- glycerids in, Rec. V, 954; XI, 615.
- in milk and cream, Rec. V, 642.
- Norwegian, composition, Rec. XII, 515.
- saponifying by Leffmann and Beam method, Rec. V, 775.
- studies, Rec. III, 832; IV, 93; XI, 284; XII, 880.
- v. space system for creameries, Rec. VII, 625.

fatty acids in, Rec. IV, 213; VII, 273; XI, 312.

faults, Rec. VI, 941; IX, 1089.

Finnish, water content of, Rec. IX, 92.

flavor—

- and aroma as related to acid fermentation, Rec. XI, 388.
- as affected by germs from machine-drawn milk, Rec. X, 291.

Butter—Continued.

flavor—continued.

- as affected by iron, Rec. V, 1053.
- as affected by salt, Rec. X, 493.
- control of, Rec. XI, 285.

flavor-producing micrococcus, Rec. IX, 185, 986.

fresh cow v. stripper, Rec. IX, 91; X, 686.

from buffalo milk, Rec. VI, 669.

colostrum, analyses, Rec. IV, 488.

cream of varying richness, Bul. 2, II, 27.

goats' milk, Rec. V, 655, 816, 956.

goats' milk, analysis, Rec. V, 956.

human milk, Rec. VI, 669.

reindeer milk, analyses, Rec. XI, 789.

sheep's milk, Rec. VI, 669.

sows' milk, Rec. VI, 669.

sweet cream. (See BUTTER, SWEET CREAM.)

whey, Rec. VII, 69; IX, 494.

fungus—

new, Rec. VIII, 435.

on, Rec. VI, 1025.

grading, Rec. XII, 593.

hardness, Rec. X, 687.

hardness as affected by—

different causes, Rec. XII, 89.

food, Rec. III, 86; V, 87; XI, 974.

wash water, Rec. XII, 183.

increasers, Rec. V, 218, 1053; VIII, 421; IX, 981; XII, 883.

imitation—

analyses, Rec. X, 281.

exports, Rec. XI, 976.

imports into the United Kingdom, Rec. XI, 976.

inferior, improvement, Rec. IX, 389; XI, 587.

insoluble fatty acids, determination, Rec. VI, 271.

inspection, Rec. XI, 380.

in margarin, determination, Rec. X, 118.

iodin number, Rec. III, 88; IV, 569, 663, 664; V,

1097.

iodin number as affected by food, Rec. V, 974.

keeping quality, Rec. V, 208, 440, 1059.

lauric acid in, Rec. V, 954.

lecithin content, Rec. V, 342.

machine, new, Rec. VIII, 175.

maggots in, Rec. VI, 740.

making. (See also CREAM.)

making, Rec. VII, 256; IX, 384, 484; X, 792.

making—

and packing for warm climates, Rec. XII, 89.

control, Rec. XII, 186.

cultures for, Rec. III, 653; VIII, 261; IX, 589, 1088.

directions, Rec. III, 788; IV, 495.

effect of stage of lactation on, Rec. IV, 93, 416; V, 641, 1052; IX, 91; X, 89, 228; XI, 686.

efficiency of milk fat, Rec. IV, 270, 272; V, 1054.

experiments, Rec. V, 353; XI, 681.

for export, Rec. XII, 684, 983.

select trade, Rec. XII, 684.

Butter—Continued.

making—continued.

from aerated and nonaerated milk, Rec.

V, 643, 1054; XI, 681.

heated milk, Rec. I, 135; IV, 447; XI, 84.

milk with large and fat globules, Rec. V, 1022; VI, 939.

pasteurized milk or cream, Rec. IV, 447; V, 440, 646, 1025, 1058, 1059; X, 288, 289, 886, 889; XI, 85, 296, 681, 682, 976; XII, 386.

ripened cream, Rec. II, 299, 593; V, 208, 1059.

sterilized cream, Rec. V, 1059.

sweet cream. (See BUTTER, SWEET CREAM.)

in Australia, Rec. VIII, 536.

Canada, Rec. XI, 1085.

cooperative creameries, Rec. IV, 988.

England and Denmark, Rec. VII, 808.

the South, Rec. I, 151; V, 1560.

increased yield with pepsin, Rec. V, 218.

loss in, Bul. 2, I, 191; Bul. 2, II, 101;

Rec. I, 323; II, 323; III, 21, 22, 401, 765;

IV, 269, 491, 492; V, 999, 1054.

modern processes, Rec. VI, 941.

new method, Rec. IX, 590; X, 1096.

notes, Rec. VI, 488; VII, 71.

on the farm, Rec. IV, 611; V, 642; IX, 795.

pasteurization in, Rec. IX, 296, 689.

pure cultures in, Rec. III, 653; VIII, 261,

441; IX, 589, 689, 1088; X, 591, 593.

ripening cream for, Rec. II, 299, 593; VI, 167; VIII, 441.

separation of butter from buttermilk by centrifuge, Rec. IV, 785.

separation of butter from cream, new process, Rec. VIII, 724.

starters for, Rec. XII, 388.

systems, Rec. VIII, 835.

test of methods, Rec. IV, 272.

treatise, Rec. XI, 490.

value of milk for, Rec. IV, 317; V, 314.

melting point—

as affected by food, Rec. II, 296, 514; III, 469; IV, 317, 509.

determination, Rec. III, 469; IV, 569.

melting test, Rec. V, 655, 724.

micro-organisms in, Rec. V, 1047.

mold, cause and prevention, Rec. XI, 682, 683.

moldy, Rec. VI, 1095; IX, 92; XI, 977; XII, 882.

myristic acid in, Rec. V, 954.

Normandy, Rec. VII, 717.

Norwegian, analyses, Rec. XII, 90.

nutritive value, Rec. VII, 708, 992; XII, 177.

oleic acid in, Rec. V, 954.

package, Rec. VII, 897; XII, 90.

packing for warm climates, Rec. XII, 89.

palmitic acid in, Rec. V, 954.

Penicillium crustaceum, causing mold of, Rec. XI, 683.

preservation, Rec. VIII, 436; XI, 285.

preservation in brine, Rec. IV, 223; V, 1053.

preservatives, Rec. VI, 754; VII, 808.

prices in New York and London in 1897, Rec. XI, 976.

Butter—Continued.

production—

and distribution, Rec. IV, 846.

increase of live weight, Rec. V, 890.

by Ayrshire cows, Rec. V, 319.

Breitenberg cows, Rec. IX, 388.

different breeds, Rec. III, 312; IV, 268,

271; V, 319, 1052, 1064; VI, 68, 69; VII,

46; VIII, 634; X, 493.

different breeds, daily and monthly, Rec. IV, 271.

different cows, Rec. V, 320, 597; VI, 478.

Holstein-Friesian herds, Rec. VII, 523.

corn meal and bran for, Rec. V, 72.

cost, Rec. IV, 268; X, 690; XI, 490; XII, 480, 982.

cost as compared with meat, Rec. XII, 481.

cotton-seed meal *v.* wheat bran for, Rec. V, 72.

cotton-seed, steamed *v.* raw for, Rec. V, 974.

daily variation, Rec. III, 216.

effect of change from barn to pasture, Rec. V, 317.

effect of dehorning, Bul. 2, I, 214.

effect of food, Rec. VI, 160, 752; VIII, 822, 823; X, 486.

effect of period of lactation, Rec. IV, 271, 272, 1052.

effect of temperature of stable on, Rec. VIII, 432.

gluten meal *v.* corn meal for, Rec. III, 86.

gluten meal *v.* cotton-seed meal for, Rec. III, 86.

gluten meal *v.* skim milk for, Rec. III, 86.

ground oats *v.* bran for, Rec. II, 430, 440.

in Canada, Rec. XI, 490.

Denmark, Rec. XII, 91.

Finland, Rec. VIII, 635.

Italy, Rec. VII, 256.

Norway, Rec. VI, 172.

winter, Rec. VI, 925; VII, 425.

potatoes *v.* sugar beets for, Rec. V, 974.

profits, Rec. VII, 423; IX, 92.

silage *v.* corn fodder for, Bul. 2, I, 193; Rec. II, 430, 440.

silage *v.* hay for, Rec. III, 86.

silage *v.* mixed feed for, Rec. X, 286.

quality—

effect of corn on, Rec. XI, 781.

test, Rec. V, 541.

rancid—

anaerobic bacteria in, Rec. V, 1047.

micro-organisms isolated from, Rec. V, 1033.

volatile acids in, Rec. IV, 784; V, 734, 955; XI, 584.

rancidity, Rec. V, 734, 815; X, 784, 1091; XI, 616; XII, 186, 680.

rancidity—

and acid number, Rec. V, 955, 1023.

bacteria, Rec. III, 832; V, 816, 1023, 1047.

preservation, Rec. III, 751, 929.

plants for preventing, Rec. V, 1066.

reaction of—

cotton-seed meal and peanut oil, Rec. X, 1096.

sesame oil, Rec. IX, 795.

Butter—Continued.

- refractive index, Rec. III, 929.
- refractometer, new, Rec. VI, 868; VII, 273.
- refrigeration on steamships, Rec. VIII, 536.
- relation between specific gravity and insoluble fatty acids, Rec. X, 514.
- removal of acid, Rec. VIII, 89.
- renovated, or process, Rec. IX, 280; XI, 889.
- renovated, or process, detection, Rec. XI, 83; XII, 18, 79, 91, 308.
- salting, Rec. V, 1037, 1053; VI, 758; VII, 339.
- sampling, Rec. III, 401; IV, 461.
- Schleswig-Holstein, decline in quality, Rec. VI, 941.
- separation of buttermilk by centrifuge, Rec. IV, 785.
- shrinkage of, Rec. V, 722.
- specific gravity, Rec. IX, 180.
- standard, necessity, Rec. X, 890, 1091.
- stearic acid in, Rec. V, 954.
- Stemphylium butryi* in, Rec. XII, 656.
- storing, loss of weight, Rec. IX, 92.
- stripper, Rec. X, 698.
- substitutes, Rec. VI, 753; VII, 917; VIII, 827.
- substitutes—
 - analyses, Rec. XII, 1083.
 - determination of fat in, Rec. VII, 918.
 - regulations controlling in Jersey, Rec. VI, 84.
- supply of large cities, Rec. X, 91.
- Swedish, water content, Rec. V, 920; VII, 895
- sweet cream, Bul. 2, II, 103; Rec. II, 53, 299, 593; III, 44, 602, 603, 653, 690; V, 646; XII, 1083.
- sweet cream—
 - keeping quality, Rec. II, 230; V, 208, 646; VIII, 1026.
 - v. ripened cream, Rec. II, 204; IV, 425, 446; V, 207, 643, 1056; VI, 936.
- testing, Rec. X, 118, 1005.
- tests of cows, Rec. VIII, 436.
- tubercle bacilli in, Rec. III, 423; IX, 689, 887; X, 189, 883, 995, 1092; XI, 387, 887; XII, 987.
- typhoid bacillus in, Rec. III, 423; IV, 317; X, 995; XI, 786.
- unsalted, shipping trials, Rec. XI, 976.
- vegetable oils in, recognition, Rec. VI, 271.
- volatile fatty acids—
 - as affected by food, Rec. IV, 509; V, 974.
 - affected by olein, Rec. V, 974.
 - affected by rancidity, Rec. IV, 784; V, 734, 955; XI, 584.
 - affected by season, Rec. X, 886.
- determination, Rec. IV, 389, 663, 664; V, 922; VI, 271; VII, 17, 186, 460; VIII, 199; IX, 722; X, 515, 919.
- determination, Duclaux's method, Rec. VII, 460.
- during twelve months, Rec. V, 1101.
- glycerids in, origin, Rec. VII, 618.
- in, Rec. II, 296; III, 125; IV, 316, 389, 569, 663, 664; V, 106, 922, 955, 1101; VI, 271; IX, 722; X, 919.
- studies, Rec. XI, 679.
- variation, Rec. VI, 846; XI, 487, 975.
- v. margarin, nutritive value, Rec. VII, 708.

Butter—Continued.

- washing—
 - and salting, Rec. I, 98.
 - effect of, Rec. X, 289.
- water—
 - and digestible nutrients in, Rec. V, 499.
 - content, Rec. III, 929; IV, 95, 690, 784, 988; V, 134, 722, 723, 815, 824, 920, 927, 952; VI, 270, 271, 670, 671; VII, 157, 894, 895; IX, 92, 192, 493, 887; X, 289, 514, 1090; XI, 188, 789.
- water content as affected by—
 - conditions in churning, Rec. XII, 881.
 - salt, Rec. XII, 86.
 - size of granules, Rec. XII, 86.
 - working, Rec. V, 723, 1053; XII, 86, 881.
- whey, Rec. VII, 69; IX, 494; X, 1096.
- whey—
 - analyses, Rec. X, 790.
- white spots on, Rec. XII, 87.
- workers—
 - descriptions, Rec. IV, 189.
 - tests, Rec. III, 891.
- working, losses during, Rec. VIII, 835.
- yield—
 - calculation, Rec. IV, 492; VI, 478; VIII, 635; XII, 986.
 - from cream of different richness, Bul. 2, II, 27.
 - increased by pepsin, Rec. V, 218.
- Buttercup—
 - analyses, Bul. 2, II, 51; Rec. VII, 155.
 - bulbous, notes, Rec. V, 398.
 - digestibility, Bul. 2, II, 54.
- Buttercups, root system, Rec. IV, 46.
- Butterflies—
 - anatomical studies, Rec. IX, 773.
 - and moths, Rec. VIII, 808.
 - and moths—
 - British and European, Rec. VII, 699.
 - color and color patterns, Rec. VIII, 910.
 - attacking fruits, Rec. XI, 170.
 - common to Norway and Arctic North America, Rec. V, 1037.
 - dimorphism, Rec. VII, 791.
 - enemies, Rec. II, 116; IV, 552; IX, 1071.
 - migration, Rec. VI, 1003; XI, 765.
 - notes, Rec. II, 101, 116, 654, 664, 669; IV, 852; V, 63, 311; VII, 517; XI, 174, 371.
 - of Canada, Rec. X, 168.
- Butterfly—
 - aberrations, origin, Rec. XII, 1068.
 - and moth, life history, Rec. X, 874.
 - archippus—
 - natural enemies, Rec. IV, 852.
 - swarming, Rec. IV, 669.
 - black swallow-tail, notes, Bul. 2, II, 58.
 - gray hair-streak, on beans, Rec. VI, 1003.
 - larvæ, preparation, Rec. VIII, 910.
 - locust skipper, notes, Rec. III, 47.
 - pupæ—
 - anatomy and physiology, Rec. VII, 44.
 - development, Rec. X, 1076.
 - semicolon, Rec. IX, 668.
 - yellow, notes, Rec. VI, 649.
- Butterine, analyses, Rec. VIII, 719.

Buttermilk—

- analyses, *Bul.* 2, 1, 191; *Bul.* 2, 11, 101, 105; *Rec.* 11, 53, 332; *III*, 21, 45, 48, 765; *IV*, 68, 75, 486; *V*, 207, 944; *X*, 187; *XI*, 680.
- bacteria in, *Rec.* V, 208.
- curd, analyses, *Rec.* V, 777.
- Danish, use, *Rec.* V, 609.
- fat in, *Rec.* 11, 53, 323, 332, 334.
- for fattening animals, *Rec.* V, 459.
- pigs, *Rec.* 111, 131, 155; *IV*, 742; *VIII*, 1012; *IX*, 978.
- loss of fat in, *Bul.* 2, 11, 101; *Rec.* 111, 21; *V*, 999.
- micro-organisms in, *Rec.* V, 1047.
- pasteurization, *Rec.* IX, 590.
- sampling, *Rec.* 111, 478.
- separation from butter by centrifuge, *Rec.* IV, 785.
- utilization, *Rec.* VII, 339; *X*, 91.
- v. skim milk for pigs, *Rec.* IX, 978.

Butternut—

- leaf blight, *Rec.* X, 649.
- trees, notes, *Rec.* 11, 512, 663, 741.
- wood, ash analyses, *Rec.* X, 232.
- woolly worm, remedies, *Rec.* IX, 574.

Butternuts—

- food value, *Rec.* XII, 78.
- notes, *Rec.* I, 315; *III*, 521; *IV*, 654.
- varieties, *Rec.* 11, 295.

Butterweed, analyses, *Rec.* 111, 629.Buttonbush, notes, *Rec.* 111, 522.Buttonweed, root system, *Rec.* IV, 46.

Butyric acid—

- and *Bacillus subtilis*, *Rec.* 111, 749.
- determination, Haberland's method, *Rec.* XII, 214.
- distillation, *Rec.* IV, 613.
- fermentation, *Rec.* VI, 272, 1025; *VII*, 71; *XI*, 688.
- in butter, *Rec.* V, 954.

Butyric acids, change into isobutyric acids, *Rec.* IX, 808.Butyrometer, *Rec.* V, 928.

Butyrometer—

- Colibri, *Rec.* VI, 754.
- description, *Rec.* IV, 692.
- for determining fat in milk, *Rec.* IV, 616.
- Mercier, description, *Rec.* XII, 91.

Bacillus spp., notes, *Rec.* IV, 655.

By-products—

- as fertilizers, *Rec.* VIII, 767.
- digestion experiments, *Rec.* VI, 6, 8.
- feeding, *Rec.* VI, 330.
- from chickens, utilization, *Rec.* XI, 79.
- of corn, *Rec.* VII, 883.
- dairy, *Rec.* X, 698.
- gas manufacture, *Rec.* V, 651.

Byturidae, monograph, *Rec.* XI, 562.*Byturus*—

- tomentosus*, notes, *Rec.* VI, 65.
- unicolor*, notes, *Rec.* IV, 839; *X*, 1066.

Cabbage—

aphis—

- hibernation, *Rec.* 111, 177.
- notes, *Rec.* I, 21; 11, 281, 664, 673; *III*, 176, 198; *IV*, 58, 254; *V*, 101; *VI*, 65, 151, 317; *VII*, 144; *VIII*, 1002; *IX*, 262, 469; *X*, 66, 164; *XI*, 657, 863, 952; *XII*, 368.

Cabbage—Continued.

aphis—continued.

- parasites, *Rec.* IV, 58.
- remedies, *Rec.* IV, 58, 171; *IX*, 469.
- bacterial disease, *Rec.* VI, 229; *IX*, 319.
- black mold, *Rec.* 111, 307.

black rot—

- investigations, *Rec.* XII, 654.
- notes, *Rec.* XI, 56.
- treatment, *Rec.* IX, 849; *X*, 155, 456.

blight, treatment, *Rec.* IV, 55.Brazil, analyses, *Rec.* XII, 1076.butterfly— (*See also* CABBAGE WORM.)

- imported, fungus diseases, *Rec.* 111, 10.
- imported, notes, *Rec.* I, 11, 21, 22, 26, 45; *III*, 46, 97, 176, 198, 298, 309, 752, 859; *IV*, 254, 354; *V*, 101; *VI*, 917; *VII*, 144, 881; *VIII*, 146, 908; *IX*, 262, 856; *X*, 164; *XI*, 169, 952; *XII*, 1059.
- imported, wing development, *Rec.* XII, 273.
- large, notes, *Rec.* IV, 254.
- natural enemies, *Rec.* XII, 661.
- notes, *Bul.* 2, 1, 177; *Rec.* I, 12, 21, 45; *II*, 81, 101, 323, 654, 664; *III*, 175, 176, 198, 298, 309, 318, 359; *IV*, 254; *V*, 63, 101, 206, 311, 685; *VI*, 567, 1007; *VII*, 144; *VIII*, 145, 146, 418, 908; *IX*, 664, 856; *X*, 570; *XI*, 66, 952; *XII*, 1059.
- remedies, *Rec.* I, 11, 12; *III*, 298; *IV*, 865; *VII*, 144; *XII*, 661, 850.

Chinese, notes, *Rec.* VI, 217; *X*, 547.club root— (*See also* TURNIP CLUB ROOT.)

- infection experiments, *Rec.* X, 560.
- notes, *Bul.* 2, 1, 175; *III*, 307; *IV*, 50; *V*, 685; *VI*, 65, 824, 936; *VII*, 39, 141, 700; *VIII*, 412; *X*, 456; *XI*, 356; *XII*, 218, 685.
- studies, *Rec.* XII, 358.
- treatment, *Rec.* IV, 55; *V*, 685; *VI*, 647, 995; *IX*, 56, 957; *X*, 150, 155, 444, 1050; *XI*, 56.

curculio, notes, *Rec.* V, 101; *VII*, 697; *IX*, 67; *XII*, 363.cutworms, notes, *Rec.* 111, 97; *V*, 63.evergestis, notes, *Rec.* IV, 254; *V*, 685.

flea-beetle—

- Colorado, notes, *Rec.* V, 311.
- notes, *Rec.* 111, 860.

fly, notes, *Rec.* VI, 65.gall insect, remedies, *Rec.* VI, 1007.

grafted—

- on *Barbarea intermedia*, *Rec.* V, 1089.
- Brassica chieranthus*, *Rec.* V, 1089.
- cabbage, *Rec.* V, 1089.
- kohlrabi, *Rec.* V, 1089.
- Sysimbrium alliaria*, *Rec.* V, 1089.
- turnip, *Rec.* V, 1089.

Japanese, notes, *Rec.* V, 881.leaf curl, notes, *Rec.* VI, 548.

leaf miner—

- imported, notes, *Rec.* IV, 417.
- notes, *Rec.* 11, 654.

mamestra, notes, *Rec.* V, 685.mildew, notes, *Rec.* 111, 307.

moth—

- notes, *Rec.* VII, 316.
- parasites, *Rec.* VIII, 417.
- remedies, *Rec.* VII, 147.
- pioneer, notes, *Rec.* 111, 46; *V*, 593; *VII*, 144.
- plant, history, *Bul.* 2, 11, 90.

Cabbage—Continued.

plusia—

imported, notes, Rec. VII, 42.
 notes, Bul. 2, II, 119; Rec. I, 12, 21, 45; II, 664; III, 97; IV, 254, 354; V, 101, 206, 311, 685; VI, 917; VII, 144; VIII, 146, 418; X, 134, 270; XI, 472, 552.
 remedies, Rec. X, 270, 869; XI, 1065.

plutella—

kerosene emulsion for, Rec. III, 359.
 notes, Rec. IV, 254; V, 211, 685; VII, 144; VIII, 146; XI, 769.

root maggot—

insecticides for, Bul. 2, I, 145; Rec. II, 415.
 notes, Bul. 2, I, 101; Rec. III, 198, 359; IV, 254; V, 402; VI, 911, 917; VII, 700; VIII, 320, 418, 904, 1003; IX, 862; XI, 66, 863, 955, 957; XII, 843.
 remedies, IV, 172; VI, 914; VII, 41; IX, 862.

rot, cause, Rec. XI, 552.

seed—

Eastern v. Western, Rec. III, 38; IV, 921.
 germination tests, Rec. II, 317; V, 628.
 imported v. American, Rec. III, 38.
 influence of, Rec. VIII, 782.
 Puget Sound, Rec. I, 291.

stems, splitting, Rec. V, 1094.

turnip, fertilizer experiments, Rec. XII, 843.

v. clover rowen for egg production, Rec. X, 676.

webworm—

imported, notes, Rec. XII, 363.
 notes, Rec. XI, 364, 369.

worm— (See also CABBAGE BUTTERFLY.)

fungus diseases, Rec. III, 10.
 hot water for, Rec. II, 323.
 insecticides for, Rec. II, 719.
 notes, Rec. I, 45; II, 323, 720; III, 46, 97, 176, 792, 859; IV, 840; V, 63, 206, 311, 402, 593, 990; IX, 262; X, 458, 459; XI, 66, 955.
 pyrethrum for, Rec. II, 323.
 remedies, Rec. I, 11; IV, 58, 203, 254; X, 570, 869; XI, 169.
 zebra, notes, Rec. I, 21; II, 664.

Cabbages—

adapted to Utah, Rec. V, 53.

analyses, Rec. IV, 59.

ash constituents, Rec. III, 373.

culture—

methods of, Bul. 2, II, 90; Rec. IX, 357.
 ridge v. level, Rec. XI, 244.
 shallow v. deep, Rec. VIII, 782.

culture experiments, Rec. IV, 39; VI, 296, 405, 637; VII, 33, 120; VIII, 48, 313, 407; IX, 840; XII, 1043.

double cropping with potatoes, Rec. XI, 44.

early v. late planting, Rec. III, 38.

fertilizer—

experiments, Bul. 2, I, 94; V, 171, 189, 708, 716; VII, 203, 239; VIII, 54, 600; IX, 840; X, 433, 548; XI, 543, 842; XII, 429, 843, 851.
 formula, Rec. XII, 851.
 requirements, Rec. XI, 250.

forcing, Rec. X, 148.

growing and marketing, Rec. XII, 850.

Cabbages—Continued.

growth as affected by incandescent gaslight, Rec. XII, 47.

heading as affected by—

depth of planting, Rec. II, 508.
 transplanting, Rec. I, 283; III, 618.

influence of seed, Rec. VIII, 782.

insects affecting, Bul. 2, II, 90; Rec. VIII, 147, 613; XI, 66.

irrigation, Rec. VIII, 689; IX, 596.

nitrogen content of varieties, Rec. XI, 451.

notes, Rec. V, 593, 790, 870, 871, 873, 877; X, 547; XI, 850, 1047; XII, 328.

sulphate of ammonia v. nitrate of soda for, Rec. VIII, 660.

summer, varieties, Rec. VIII, 977.

transplanting, Rec. IV, 555, 921.

transplanting—

as affecting heading, Rec. I, 283; III, 618.
 effect on time of maturity, Rec. XII, 49.

trimming, Rec. IV, 921.

varieties, Bul. 2, I, 32; Bul. 2, II, 90, 135; Rec. I, 94, 188, 293; II, 6, 23, 62, 64, 69, 349, 392, 515, 556, 583, 598, 607, 641, 659; III, 19, 82, 85, 350, 402, 610, 622, 625, 627, 724, 791; IV, 352, 555, 650, 828, 921; V, 53, 189, 785, 1074; VI, 55, 142, 218, 548, 725, 727, 585; VII, 124, 125, 129, 213, 302, 405, 685; VIII, 225, 790, 888, 889, 977; IX, 244, 351, 832; X, 48, 639; XI, 51, 244, 250, 251, 842; XII, 150, 850, 1043.

winter, storage, Rec. XII, 647.

Cabinet beetles, Rec. VI, 440.

Cable to Iceland, Rec. XII, 920.

"Cabuchage" of grapes, notes, Rec. XII, 464.

Cacao— (See also COCOA.)

affected by *Phytophthora omnivora*, Rec. XI, 1061.

alkaloids of, determination, Rec. V, 817.

apparatus for drying, Rec. VI, 216.

beetle, notes, Rec. VI, 838.

bug of Java, Rec. VI, 440.

composition, Rec. IX, 561.

cultivation and improvement, Rec. VIII, 985.

culture, Rec. VII, 404, 586; XI, 548, XII, 853.

culture—

in Brazil, Rec. XI, 1048.

Ecuador, Rec. XI, 548, 744.

Grenada, Rec. XII, 649.

Samoa, Rec. X, 151; XI, 352.

disease in Trinidad, Rec. XI, 556.

ctymology, Rec. XI, 250.

fungi affecting, Rec. XII, 657.

grafting, Rec. XI, 548.

notes, Rec. VI, 636; XI, 352.

pod disease, Rec. XI, 166, 362.

seed, glycosid in, Rec. V, 648.

seeds, analyses, Rec. XI, 1048.

soils, analyses, Rec. XI, 718.

tree—

and fruit, analyses, Rec. IX, 129.

gum disease, Rec. VIII, 801.

trees, caterpillars on, Rec. VII, 146.

Caccio cavallo, analysis, Rec. IV, 519.

Cache la Poudre River, flow, Rec. XII, 295.

Cacacia—

argyrosipila, notes, Rec. IV, 58; VI, 315; VII, 143.

Cucurbita—Continued.

- cervicartana*, notes, Rec. II, 429; XII, 468.
excessana, notes, Rec. IX, 679.
portulicana attacking oranges, Rec. XI, 561.
responzana, notes, Rec. IX, 679; X, 470.
rogaviana—
 notes, Rec. IV, 417; VII, 889; VIII, 146;
 IX, 370, 662; XII, 68, 862.
 remedies, Rec. XI, 1065.
rosana, notes, Rec. II, 429; IV, 839.
semiferana, notes, Rec. I, 12; IV, 58; VI, 315;
 VII, 143; VIII, 146; IX, 151.
verpansa, notes, Rec. VIII, 69.

Cactaceae—

- affinities, Rec. VI, 487.
 description, Rec. IX, 328.

Cacti—

- as fodder plants, Rec. VII, 708.
 chemistry, Rec. IX, 329.
 diseases, Rec. IX, 251, 659.
 economic, notes, Rec. XII, 1056.
 grafting, Rec. VI, 993.
 notes, Rec. XII, 1046.
 of Death Valley, California, Rec. V, 91.
 Lower California, new species, Rec. VII, 564.
 scale insects affecting, Rec. X, 569.

Cactus—

- and Mesembryanthemum, rôle of starch in,
 Rec. VII, 277.
 dublin. (See DAHLIA CACTUS.)
 fruit, analyses, Rec. VII, 366.
 plant, analyses, Rec. VII, 366.
 revision of species, Rec. VI, 190.
 Russian, notes, Rec. IV, 699.
 white scale, Rec. VIII, 146.

Cactus opuntia, chemical analysis, Rec. VII, 687.

Caddice fly attacking lilies, Rec. XI, 958.

Caddice worms, notes, Rec. VIII, 909.

Cadelle—

- notes, Rec. VII, 516; IX, 65.
 remedies, Rec. VIII, 241.

Cenophanes spp., notes, Rec. IV, 852.*Ceanota*—

- conigenum*, n. sp., notes, Rec. VIII, 608.
fumarix, genetic relationship with Melamp-
 sion of *Populus tremula*, Rec. XI, 59.
nitens—

- notes, Rec. II, 32, 482; III, 161, 411; IV, 50;
 V, 876; VI, 832; VII, 401.
 treatment, Rec. IV, 43.
saxifragæ, notes, Rec. XI, 168.
 spp. in Ohio, Rec. IV, 411.

Chromola calalii, notes, Rec. XII, 768.*Chrysalpinia*—

- coriaria*, notes, Rec. XI, 1137.
falcata, notes, Rec. IX, 142.

"Chesur weed" for fiber, Rec. VI, 207.

Cichede—

- content of teas, Rec. X, 80.
 determination, Rec. VIII, 286; X, 607; XII,
 1007.
 effect on muscular work, Rec. XI, 79.
 free coffee surrogates, studies, Rec. X, 281.
 in coffee, determination, Rec. IX, 420.
 plants, determination, Rec. V, 126.
 tea, determination, Rec. VII, 557, 652, 921.
Cajanus, analyses, Rec. X, 678.

Cajanus indicus, culture experiments in India,
 Rec. V, 332.

Calc, analyses, Rec. X, 876.

Calces—

- and ale, recipes for, Rec. VIII, 1014.
 for steers, analyses, Rec. X, 780.

Calabash, fruit and tree, analyses, Rec. IX, 129,
 XI, 249.*Caladium esculentum*, analyses, Rec. XII, 1076.*Calathea lindleyi*, notes, Rec. III, 599.*Calamagrostis*, revision of North American spe-
 cies, Rec. X, 515.*Calamagrostis*—

- alcalica*, notes, Rec. IV, 498.
ataskana, notes, Rec. X, 515.
angusta, notes, Rec. X, 515.
arctica, notes, Rec. IV, 951.
bolanderi, notes, Rec. IV, 498.
breweri, notes, Rec. IV, 498.
californica, notes, Rec. X, 515.
canadensis, notes, Rec. II, 329; IV, 925; VII,
 384; VIII, 781.
confinis, notes, Rec. IV, 925; VI, 403; VIII,
 781.

crasselythensis, notes, Rec. IV, 498.*cusickii*, notes, Rec. IV, 498.*densa*, notes, Rec. IV, 498.*deschampsoides*, notes, Rec. IV, 498.*fasciculata*, notes, Rec. X, 515.*foliosa*, notes, Rec. X, 515.*horellii*, notes, Rec. IV, 498.*labradorica*, notes, Rec. X, 515.*laxiflora*, notes, Rec. X, 515.*lemonii*, notes, Rec. X, 515.*micrantha*, notes, Rec. X, 515.*neglecta*, notes, Rec. IV, 951.*newcombii*, notes, Rec. X, 515.

n. sp., Rec. VIII, 107.

purpurascens, notes, Rec. IV, 498.*stricta*—

- analyses, Rec. IV, 769, 770.
 notes, Rec. IV, 771.

subflexuosa, notes, Rec. X, 515.*sykesensis*, longifolia, notes, Rec. IV, 951.*twedii*, notes, Rec. IV, 498.*Calamovilfa longifolia*, notes, Rec. VI, 403; VIII,
 781; XI, 423.*Calandra*—

- granaria*, notes, Rec. II, 5; III, 702; V, 410;
 VI, 438; VII, 43, 515; VIII, 241, 610; IX, 66.
oryzae, notes, Rec. II, 5; III, 702; IV, 253; V,
 410; VI, 235, 438; VII, 43, 515, 610, 878; IX,
 66; XI, 472.

Calandrinia menziesii, notes, Rec. III, 598.*Calathea allouya*, analyses, Rec. XI, 249.*Calanthe*, analyses, Rec. IX, 129.*Calcareous*—

- fertilizing materials, tests for, Rec. XI, 506.
 manures, experiments in Campine, Belgium,
 Rec. V, 230.
 sea sand, analyses, Rec. XII, 626.

Calceolaria leaf blight, notes, Rec. VI, 827.*Calceolaria*, culture, Rec. IX, 247; XII, 247.*Calcium*—

- determination, Rec. IX, 620.
 determination in presence of iron and alumi-
 num, Rec. XII, 417.

Calcium—Continued.

- in ashes, determination, Rec. XI, 213.
- role in plants, Rec. VIII, 106.
- substitution of strontium and barium for, in plants, Rec. XII, 219.
- volumetric determination, Rec. V, 647.
- Calcium bicarbonate in the presence of phosphoric acid, Rec. XII, 609.
- Calcium bisulphite as clarifying agent, Rec. XI, 293.
- Calcium carbide—
 - and acetylene, Rec. VII, 90.
 - as a fungicide, Rec. XII, 62.
 - an insecticide, Rec. VIII, 70, 148; IX, 676.
 - for phylloxera, Rec. VIII, 912; IX, 466, 471; XI, 371, 1057; XII, 775.
 - waste, analyses, Rec. XII, 907.
- Calcium carbonate—
 - analyses, Rec. V, 165.
 - as an insecticide, Rec. II, 416.
 - determination, Rec. IX, 619; XII, 318.
 - determination in soil, Rec. XI, 23; XII, 417.
 - effect on—
 - digestion, Rec. IV, 438.
 - humus substances, Rec. X, 1022.
 - for pea blight and mildew, Rec. IX, 656; X, 447.
 - sorghum, Rec. IV, 250.
 - sweet-potato diseases, Rec. III, 307.
 - in arable soils, role, Rec. VI, 283.
 - soils, Rec. V, 902.
 - soils, determination, Rec. XI, 23, 110.
 - precipitated, analyses, Rec. III, 299.
- Calcium chlorid—
 - absorptive power of soils for, Rec. VI, 121.
 - assimilation by plant tissue, Rec. V, 923.
 - effect on composition of potatoes, Rec. XII, 938.
 - in determination of potash in fertilizers, Rec. VI, 865.
 - use in cheese making, Rec. X, 1092; XII, 591.
- Calcium citrate, characteristics, Rec. V, 127.
- Calcium cyanate as a fertilizer, Rec. VII, 490.
- Calcium hydrate, effect on germination, Rec. XII, 759.
- Calcium hydroxid, effect on glucose, Rec. VII, 741.
- Calcium nitrate, preparation, Rec. III, 927.
- Calcium oxalate—
 - crystals, occurrence in leguminous plants, Rec. X, 321.
 - formation in plants, Rec. VIII, 108.
 - in buds of *Prunus americana*, Rec. XII, 910.
 - plants, Rec. VI, 386.
 - seed coats of Umbelliferae, Rec. VII, 91.
 - wood of trees, Rec. IV, 314.
 - suppression by growth of plant organs, Rec. IX, 329.
- Calcium oxid—
 - determination—
 - of carbon dioxide, Rec. XI, 506.
 - in London purple, Rec. XII, 821.
 - in quicklime, Rec. VI, 376.
- Calcium phosphate—
 - action on iron sulphate, Rec. IV, 612.
 - basic, formation and nature, Rec. III, 818.
 - circulation in plants, Rec. VII, 277.

Calcium phosphate—Continued.

- effect—
 - in ration of pregnant females, Rec. IV, 867.
 - on digestion of food ingredients, Rec. IV, 449.
- for cows, Rec. III, 579, 744; V, 540, 639, 971.
- in plants, Rec. VII, 467.
- in Thomas slag, Rec. III, 818.
- solubility, Rec. VI, 287.
- soluble, reversion in the soil, Rec. IV, 388, 587.
- study, Rec. III, 655, 818.
- Calcium phospho-carbid as an insecticide, Rec. IX, 466.
- Calcium salts—
 - effect on—
 - growth of wheat, Rec. XII, 911.
 - plants, Rec. X, 613.
 - function in plant growth, Rec. IV, 221.
 - physiological role, Rec. XI, 1008.
 - resorption in the digestive tract, Rec. V, 259.
- Calcium sulphate. (*See GYPSUM.*)
- Calcium sulphid—
 - for apple scab, Bul. 2, 1, 146.
 - oat smut, Rec. III, 285.
- Calcium sulphite—
 - as a preservative for cider, Rec. X, 381.
 - influence on alcoholic fermentation, Rec. V, 618.
- Calc— (*See also CALVES.*)
 - cholera, notes, Rec. XI, 393; XII, 488.
 - deformity due to injury to mother, Rec. III, 795.
 - epizootic occurrence of *Trenda caenura*, Rec. XI, 289.
 - feeds, analyses, Rec. XII, 877.
 - manure voided by, Rec. VI, 397.
 - meal, analyses, Rec. IX, 867; XII, 70, 281, 282, 378, 877.
- Calibration, apparatus for, Rec. VII, 91.
- Calico works refuse, analyses, Rec. VI, 287; VII, 294.
- California—
 - Angora goats, Rec. VIII, 332.
 - clover. (*See CLOVER, BUR.*)
 - forestry experiment stations, Rec. VI, 731.
 - greenhouses and grounds of central station, Rec. VIII, 701.
 - privet, notes, Rec. IV, 655.
 - stinkweed, notes, Rec. VII, 497.
 - University—
 - botanical garden and herbarium, Rec. V, 563; VIII, 671.
 - greenhouses, Rec. V, 122.
 - Uredineae, new, Rec. VI, 223.
 - vine disease, Rec. IV, 439.
- Calliroa* [*Sclandria*] *obsoletum*, notes, Rec. IX, 1065.
- Calla diseases, notes, Rec. VI, 826.
- Callalu, analyses, Rec. IX, 129; XI, 249.
- Callidium sanguineum*, notes, Rec. XI, 174.
- Calliphora, bibliography, Rec. XII, 867.
- Calliphora erythrocephala*, notes, Rec. IX, 63.
- Callipterus*—
 - giganteus*, notes, Rec. XI, 657.
 - ulmifolia*, notes, Rec. X, 1096.
- Callirhytis fruticicola*, notes, Rec. VI, 440.
- Calocera viscosa*, notes, Rec. IX, 960.

Calochortus invenustus, notes, Rec. III, 598.

Calocoris—

bipunctatus, notes, Rec. VIII, 809.

fulvomaculatus, notes, Rec. VII, 792; VIII, 418.

Caloptenus italicus, remedies, Rec. XI, 658.

Calorimeter—

bomb. (See BOMB CALORIMETER.)

Bunsen's ice, Rec. XII, 478.

Carpenter's, Rec. VII, 559.

determination of ammonia by, Rec. V, 1026.

for testing butter and lard, Rec. VII, 558, 650.

Mahler's description, Rec. VI, 942.

respiration. (See RESPIRATION CALORIMETER.)

tests, Rec. III, 386.

Calorimetry in ice, a new oven for, Rec. V, 922.

Calosoma—

calidum, notes, Bul. 2, II, 93; Rec. II, 115; IV, 58; V, 206.

frigidum, notes, Bul. 2, II, 93.

scrutator, notes, Rec. II, 115; IV, 58.

Calothyranis amaturaria, notes, Rec. IV, 284.

Calves—

barley for, Rec. III, 221.

clover hay for, Rec. III, 221.

cod-liver oil for, Rec. XII, 668.

contagious diarrhea. (See CALVES, WHITE SCOUR.)

corn meal for, Rec. III, 221.

cost of—

fattening, Rec. XI, 966.

raising, Bul. 2, I, 66; Rec. XI, 178, 966, 1077.

cotton seed for, Rec. I, 233.

cotton-seed meal for, Rec. III, 469; VI, 922.

dehorning with chemicals, Rec. IV, 187.

diseases, Rec. I, 233; XII, 993.

effect of feeding rations containing no coarse fodder, Rec. IX, 81.

fall and spring comparison, Rec. XI, 972.

feeding, Rec. XI, 296.

feeding—

cooked milk from cows with foot-and-mouth disease, Rec. IV, 986.

experiments, Bul. 2, I, 66, 109; Rec. I, 233; III, 221, 404, 469; IV, 739; V, 68, 129; VI, 322, 332, 922, 923; VII, 321, 425, 614; VIII, 154, 251, 518; IX, 81, 973; XII, 275, 978.

milk from tuberculous cows, Rec. X, 693; XI, 890, 999; XII, 1086.

feeds for, Rec. XI, 1077.

flax meal for, Rec. IV, 739; VI, 923.

for cultivating vaccine virus, Rec. XI, 195.

hoose in, etiology and treatment, Rec. XII, 395.

horns, prevention of growth, Rec. V, 204.

Jersey, strength of rennet from, Rec. II, 407.

lacteo-vituline for, Rec. IX, 867.

linseed meal and skim milk for, Rec. IV, 739; V, 68, 634.

liver disease, Rec. XII, 993.

manure production, Rec. V, 388; VI, 697.

meat meal for, Rec. VII, 327; IX, 1079.

metabolism in, Rec. IX, 101, 170.

milk substitute for, Rec. IX, 169; XI, 883; XII, 282.

new-born, disinfection of navels, Rec. V, 259.

omphalitis, etiology. (See CALVES, WHITE SCOUR.)

Calves—Continued.

peanut oil—

and skim milk for, Rec. VIII, 720; IX, 874.

sour milk for, Rec. VII, 64.

for Rec. VI, 663, 842, 931; VII, 64; IX, 874.

poisoning by cotton-seed meal, Rec. V, 825; VII, 252.

poisonous effects of *Helenium autumnale*, Rec. I, 233.

potato flour and skim milk for, Rec. X, 482.

rearing, Rec. V, 823.

rennet—

curdling power of ferment, Rec. X, 91.

strength of, Rec. II, 407.

ringworm, Rec. VII, 252, 618.

septicemia, Rec. IX, 693.

skim milk—

alone and with grain, Rec. VI, 322.

and flax-seed meal, Rec. VI, 923; IX, 973.

ground oats for, Rec. IV, 739; IX, 973.

linseed meal for, Rec. IV, 739; V, 68, 634; IX, 973.

peanut oil for, Rec. VIII, 720; IX, 874.

potato flour for, Rec. X, 482.

starch for, Rec. IX, 874; X, 780.

for, Rec. III, 221; IV, 739; V, 68, 602, 634;

VI, 453; VII, 321, 425, 523; VIII, 154, 518;

IX, 973, 1080; XI, 490; XII, 472, 898.

pasteurized for, Rec. XI, 666; XII, 379.

v. whole milk for, Bul. 2, I, 109; Rec. III, 221; V, 68; VI, 468, 922, 923; VIII, 1006; IX, 169; X, 988.

spots on kidneys, Rec. XII, 993.

susceptibility to human tuberculosis, Rec. X, 95.

thoroughbred, relation of sex, Rec. VIII, 619.

tuberculosis, Rec. XI, 193, 394.

tuberculosis—

congenital, Rec. XI, 394.

hereditary, Rec. VIII, 928.

vaccine virus, cultivation of, in, Rec. XI, 195.

wheat bran for, Rec. III, 221; V, 388.

wheat food for, Rec. V, 1035.

whey, sweet, for, Rec. VIII, 1006.

white scour, Rec. VI, 576; XI, 797; XII, 193, 686.

whole milk for, Rec. V, 634; VIII, 154; IX, 169; XII, 669, 978.

Calybia spp., identification, Rec. IX, 1071.

Calycanthus floridus, notes, Rec. IV, 655.

Calypso tibialis on *Anthonomus signatus*, Rec. IV, 669.

Camaroon corn, culture experiments, Rec. I, 89.

Camara flavitarsis, notes, Rec. VI, 316; IX, 467.

Cambala annulata, notes, Rec. VI, 235.

Cambridge University, degree in agriculture at, Rec. V, 1035.

Camel—

bot, notes, Rec. X, 568.

echinococcus in, Rec. VI, 470.

Camelina—

dentata, notes, Rec. V, 913.

sativa—

cake from seed of, Rec. IV, 316.

notes, Rec. II, 651; IV, 167, 699; V, 629; VII, 135; VIII, 866, 892; IX, 143, 1055.

Camellia, species, Rec. X, 356.

Camellia japonica scale, notes, Rec. VI, 235.

Camel's milk, studies, Rec. VIII, 174, 732.

- Camels—
 inoculation for glanders, Rec. XI, 290.
 susceptibility to—
 cattle plague, Rec. XI, 289.
 rinderpest, Rec. XII, 692.
- Camembert cheese—
 analyses, Rec. VI, 338; VIII, 330.
 manufacture, Rec. V, 1060; VII, 256; XI, 588.
- Camnula pellucida*, notes, Rec. III, 55, 228, 907;
 IV, 760; VII, 256; VIII, 905; X, 765; XI, 864.
 (See also LOCUSTS.)
- Camomile—
 Roman, notes, Rec. VII, 31.
 wild, Rec. IX, 956.
- Campanula rotundifolia* form of leaves as related
 to light intensity, Rec. VIII, 380.
- Campanulaceæ, fecundation, Rec. X, 417.
- Campanulas, notes, Rec. IX, 141.
- Camphor—
 Ai, notes, Rec. VII, 774.
 barometer, Rec. XI, 430.
 culture in Florida, Rec. XI, 452.
 seed, planting, Rec. IX, 840.
 tree—
 culture, Rec. IX, 649.
 distribution, Rec. III, 597.
 trees, notes, Rec. V, 586.
- Camponotus pennsylvanicus*, notes, Rec. XI, 954.
- Campsurus picteti*, notes, Rec. IX, 370.
- Canada—
 agricultural investigations, Rec. I, 245.
 field peas. (See FIELD PEAS.)
 fleabane, notes, Rec. VIII, 703.
 hay, analyses, Rec. VI, 1023.
 pea fodder, digestibility, Rec. VIII, 423.
 stations—
 additions to arboretum, Rec. VI, 415.
 editorial notes, Rec. II, 1.
 location, Rec. II, 3.
 thistle. (See THISTLE, CANADA.)
- Canaille—
 analyses, Rec. IV, 805; VIII, 686, 772; X, 244.
 beetle, notes, Rec. V, 862, 992.
 cultivation and preparation for market, Rec.
 VI, 631.
 culture, Rec. IV, 804, 824; VI, 541, 715, 722, 984;
 IX, 643.
 culture—
 and value, Rec. X, 42.
 experiments, Rec. III, 846; VIII, 124, 492,
 771; IX, 41, 243; X, 244; XI, 240.
 extract, studies, Rec. XI, 213.
 fertilizer experiments, Rec. XI, 240.
 leaf disease, Rec. VIII, 899.
 notes, Rec. V, 862; VII, 299; VIII, 124; IX, 41;
 X, 749; XII, 945.
 roots, tannin in, Rec. III, 591; IV, 805; VIII,
 772.
 tanning qualities, Rec. VI, 345.
- Canal mud, analyses, Rec. VI, 287.
- Canals in New York, Rec. XII, 399.
 (See also IRRIGATION CANALS.)
- Canarsia—
hammondi, notes, Rec. XI, 170.
ulmiarrosorella, notes, Rec. XII, 158.
- Canary grass—
 American, analyses, Rec. V, 64.
 as a forage plant, Rec. III, 51.
- Canary grass—Continued.
 culture experiments, Rec. VI, 296, 405, 807;
 VII, 120, 384.
 large, notes, Bul. 2, I, 189; Rec. V, 871.
 notes, Rec. II, 601.
 reed— (See also PHALARIS ARUNDINACEA.)
 analyses, Rec. II, 667; VI, 403.
 culture experiments, Rec. VI, 531.
 notes, Bul. 2, I, 189; IV, 925; VII, 384.
 seed—
 ash, analyses, Rec. X, 20.
 germination tests, Bul. 2, I, 30.
 notes, Rec. VI, 985.
 small, notes, Bul. 2, I, 189.
- Canavalia ensiformis*, notes, Rec. VIII, 491.
- Cancer—
 coccidian origin, Rec. VI, 932.
 occurrence in domestic animals, Rec. XI, 291;
 XII, 491.
 organisms, pathogenic effects on animals,
 Rec. XI, 91.
- Candy—
 adulteration, Rec. VII, 835.
 analyses, Rec. VI, 403.
 for bees, Rec. IV, 417.
 grass, notes, Rec. X, 343.
- Cane grass, notes, Rec. VI, 93.
- Cane sugar—
 alkalinity, determination, Rec. VI, 274.
 allotropy, Rec. IX, 25.
 analysis, Rec. V, 159.
 analysis— (See also SUGAR and BEET SUGAR.)
 Clerget's method, Rec. X, 117.
 determination of ash, Rec. III, 633.
 and beet sugar—
 comparison, Rec. VII, 257.
 distinction, Rec. VIII, 286.
 citric acid from, Rec. VII, 272.
 cost of production, Rec. X, 1093; XI, 536.
 detection in milk sugar, Rec. XII, 516.
 determination, Rec. X, 117.
 determination—
 in condensed milk, Rec. XII, 211.
 presence of commercial glucose, Rec.
 VI, 183, 867.
 presence of dextrose, Rec. XI, 614.
 extraction, Rec. III, 278.
 fermentation by *Oidium lactis*, Rec. V, 919.
 formation from dextrose, Rec. IX, 1028; X, 219.
 fuel value, Rec. III, 386.
 industry—
 in the Hawaiian Islands, Rec. XII, 742.
 investigation, Rec. III, 278.
 influence of lead precipitate on, Rec. VII, 744.
 in malt and wort, Rec. VI, 376.
 milk, detection, Rec. XI, 211.
 mixtures containing carbohydrates, Rec.
 V, 538.
 plants, Rec. VII, 468, 747; X, 417.
 seeds of plants, Rec. V, 818, 1027.
 inversion, Rec. XII, 968.
 manufacture, Rec. XII, 694.
 manufacture in Java, Rec. X, 396.
 occurrence in ripe seeds, Rec. XI, 710.
 polarization, Rec. VI, 273.
 raw, deterioration, Rec. X, 412.
 reaction, Rec. VII, 740.
 reducing power, Rec. XI, 306.

Cane sugar—Continued.

- reversion through micro-organisms, Rec. VII, 279.
- sirup, adulteration with glucose, Rec. XII, 212.
- solutions, electrolysis, Rec. XII, 107.
- statistics, Rec. II, 181.
- studies, Rec. IX, 521.

Cane wax, investigations, Rec. VI, 274.

Canebrake soil, fertilizer experiments, Rec. II, 628.

Canidae in Idaho, Rec. III, 184.

Cankerworm—

- fall, notes, Bul. 2, II, 58; Rec. II, 669; III, 197, 896; IV, 661; V, 63, 310; VI, 654; VII, 141, 314, 880; VIII, 906, 909, 999; IX, 160, 578, 858; X, 766, 1042; XII, 68, 269, 580.

spring—

- notes, Rec. II, 179, 718; III, 175; IV, 661; V, 310; VII, 141, 314, 967; VIII, 909; IX, 160, 458, 467, 574; X, 369, 766; XI, 370, 498.
- remedies, Rec. IX, 467.
- spraying experiments, Rec. XI, 171.

Cankerworms—

- notes, Bul. 2, II, 92, 118; Rec. II, 179, 651, 718; III, 54, 175, 197, 313, 896, 889; IV, 661, 840; V, 63, 310, 498; VI, 567; VII, 126, 141, 314; VIII, 321, 505, 906, 909, 912, 998, 999, 1003; IX, 458, 471, 856; X, 62, 268, 459, 763, 766, 866; XI, 173, 370, 957; XII, 997, 1059.

pupating habits, Rec. II, 269.

- remedies, Rec. I, 138; III, 889; V, 593, 882; VII, 126, 879; IX, 160, 574; X, 369, 661, 1042; XI, 558.

repression by *Botrytis tenella*, Rec. V, 257.

Canna—

- disease, Rec. IX, 457.
- diseases, treatment, Rec. XI, 752.
- leaf roller, notes, Rec. X, 659, 660.
- synopsis of species, Rec. IV, 615.

Cannabis—

- indica*, effect on horses, Rec. XII, 887.
- sativa*— (See also HEMP.)
- etiolated plantlets of, Rec. V, 649.
- japonica*, notes, Rec. IX, 41.
- notes, Rec. V, 844; VI, 294; IX, 41.
- persica*, notes, Rec. IX, 41.
- seeds of, Rec. V, 649.

Cannas—

- culture, Rec. VIII, 986.
- gum production, Rec. X, 59.
- Italian—
- notes, Rec. IX, 842, 1054; X, 552.
- varieties, Rec. XII, 152.
- notes, Rec. X, 356, 448.
- varieties, Rec. VIII, 888, 986; IX, 141; X, 552; XI, 852.

Canned—

- fish, corrosion of cans, Rec. XII, 476.
- foods, preservatives in, Rec. XI, 960.
- goods—
- adulteration, Rec. XI, 971.
- colored with copper, Rec. IX, 872.
- gaseous fermentation, Rec. VIII, 699.
- gases of, analyzing, Rec. IX, 420.
- lead in, Rec. IX, 918.
- meat bouillon, analyses, Rec. XI, 882.
- meats, examination, Rec. XI, 67.

Canneries, home, Rec. XII, 1046.

Canning—

- fruit, Rec. X, 354, 963.
- industry, Rec. V, 799.
- industry—
- in Canada, Rec. IX, 895.
- micro-organisms in, Rec. IX, 120; X, 123.
- of the United States, Rec. II, 518.
- statistics, Rec. III, 543, 546; IV, 675.
- meats, Rec. VII, 890.
- tin cans for, Rec. V, 220; X, 758.
- tomatoes and corn, Rec. VII, 36.

Cannon, gaseous projectiles, Rec. XII, 725.

Cantaloupe—

- blight, notes, Rec. XI, 314.
- definition, Rec. VI, 992.
- disease, notes, Rec. XII, 261.
- leaf blight, Bordeaux mixture for, Rec. XII, 229.

Cantaloupes—

- Asiatic, Rec. VIII, 231.
- culture experiments, Rec. VIII, 407; XII, 229.
- fertilizer experiments, Rec. III, 388; X, 548.
- for Paris market, Rec. XII, 345.
- notes, Rec. V, 983; X, 547; XI, 1047.
- varieties, Rec. I, 188; II, 314; III, 388, 792; IV, 145, 352, 828; V, 300, 496; VI, 53; VII, 129; VIII, 977; XI, 251.

Cantharellus cibarius, notes, Rec. V, 611; X, 551.*Cantharis nuttalli*—

- notes, Bul. 2, II, 93; Rec. III, 175; V, 631.
- treatment, Rec. IV, 58; XI, 470.

Cantoni, monument, Rec. XII, 521.

Caoutchouc. (See RUBBER.)

Cape weed, notes, Rec. XII, 961.

Caper spurge, notes, Rec. V, 874; X, 516.

Capillarity—

- and sap flow, Rec. IV, 871.
- effect on movements of ground-water, Rec. XI, 517.
- tubes, passage of dissolved substances through, Rec. IV, 290.

Capnodium—

- citri*, notes, Rec. V, 409.
- citricolum*, notes, Rec. IX, 361; XII, 655.
- salicinum* on American fruit, Rec. XII, 971.

Caponizing—

- cockerels, Rec. XII, 194.
- economy, Rec. IV, 747.
- experiments, Rec. III, 400; VI, 71.
- methods and results, Rec. IV, 745.

Capons—

- feeding experiments, Rec. IV, 938; VI, 71; IX, 1076.
- production, Rec. IV, 745.
- v.* cockerels—
- feeding experiments, Rec. XII, 676.
- growth, Rec. IV, 939.
- winter feeding, Rec. X, 582.

Capparis spinosa, exploitation on the Caucasus, Rec. X, 253.

Caprification—

- as related to diœcism of the fig, Rec. XI, 548.
- experiments in California, Rec. XI, 950.

Caprifoliaceæ—

- comparative anatomy, Rec. VIII, 28.
- notes, Rec. XI, 870.

Capriola dactylon, notes, Rec. X, 244.

(See also CYNODON DACTYLON.)

Capsella bursa-pastoris. (See SHEPHERD'S PURSE.)

Capsus laniarius feeding on aphides, Rec. VII, 596.

Capulinia jaboticabæ, notes, Rec. XI, 476.

Carabid—

beetles, notes, Rec. III, 54.

malodorous in Oregon, Rec. X, 570.

Carabidæ—

new genera and species, Rec. VII, 147.

phytophagous, notes, Rec. XII, 369.

Caragana arborescens—

new disease, Rec. XII, 859.

new mildew, Rec. XI, 261.

notes, Rec. III, 788; IV, 655; VI, 427; VII, 135.

Caragana—

parasites, Rec. XII, 1057.

varieties, Rec. XI, 353.

Caramel—

bodies, studies, Rec. XI, 1007.

detection in spirits and vinegar, Rec. XI, 312.

Caraway—

culture, Rec. IX, 357.

notes, Rec. VIII, 7C3.

oil cake, digestion experiments, Rec. V, 1032.

Carbohydrate—

from egg albumen, Rec. IX, 918.

group in the protein molecule, Rec. IX, 115.

reserve material in bulbs and tubers, Rec. X, 1007.

Carbohydrates—

absorption by roots, Rec. X, 1006.

accumulation in leaves, Rec. V, 253.

ammonia derivatives, Rec. VII, 645.

as affected by—

dilute alkalis, Rec. VII, 740.

glyoxylic acid, Rec. VII, 557.

as food for denitrifying organisms, Rec. X, 1014.

assimilation, Rec. III, 823.

assimilation—

by leaves, Rec. VII, 277.

plants, Rec. XI, 317.

chemistry, Rec. IX, 418.

cleavage from protein, Rec. XI, 813.

decomposition, Rec. IX, 115.

determination, Rec. VI, 106; XI, 305.

determination—

in feeding stuffs, Rec. VIII, 664, 665; IX, 220.

hydrolyzed starch products, Rec. IX, 620.

digestion by dogs, Rec. XI, 778.

feeding and respiration experiments with oxen, Rec. V, 1032.

formation—

in the animal body during hunger, Rec. V, 130.

of fat from, Rec. VI, 72.

importance in physiology, Rec. VI, 503.

in barley—

and malt, Rec. X, 79, 412.

straw, Rec. IX, 419.

in cane sugar mixture, Rec. V, 538.

cereals at different periods, Rec. IX, 551, 723.

Carbohydrates—Continued.

in coffee bean, Rec. V, 258, 660.

corn, as affected by slow drying, Rec. VI, 744.

Cyclamen europæum, Rec. IX, 24.

in digestible matter of—

crimson clover, Rec. V, 392.

red clover, Rec. V, 392.

in feeding stuffs, Rec. III, 499.

feeding stuffs, digestibility, Rec. XII, 667.

foods and condiments, determination, Rec. X, 311.

gum of *Acacia decurrens*, Rec. VI, 775.

Jerusalem artichoke, Rec. V, 347.

leguminous seeds, Rec. IV, 449.

muscle, Rec. XII, 781.

mushrooms, Rec. V, 819; VI, 195.

straw of cereals, Rec. IX, 23.

Thallophytes, Rec. XII, 1014.

turf, Rec. IX, 808.

vegetable cell membranes, Rec. V, 817.

in wheat—

determination, Rec. VIII, 951.

maize, flour, and bread, Rec. VIII, 664.

in yeast, Rec. V, 922; VI, 869.

index to literature, Rec. II, 91.

insoluble in *Lactarius piperatus*, Rec. VI, 110.

inversion, Rec. IV, 612; VI, 106.

investigations, Rec. III, 748; IV, 385.

optical properties, Rec. IV, 385.

oxidation, Rec. VII, 740.

physiology, Rec. VII, 804.

precipitation by neutral salts, Rec. IX, 25.

publications relating to, Rec. V, 1037.

quantitative determination, Rec. V, 1026.

recognition, Rec. IX, 418.

rôle in intramolecular respiration of plants, Rec. VI, 113.

transformation into fat in fasting animals, Rec. VIII, 156.

transportation in plants, Rec. VIII, 106.

water-soluble, of malt and barley, Rec. IV, 612; V, 648, 1102.

Carboleum for San José scale, Rec. XI, 655.

Carbolic acid—

and lime for plum curculio, Rec. II, 280.

as an insecticide, Rec. II, 71, 415, 720; IV, 932.

emulsion as an insecticide, Rec. II, 63; V, 63.

emulsion for pear-tree psylla, Rec. IV, 473.

for brown rot of stone fruits, Rec. III, 860.

destroying weeds, Rec. XII, 249.

milk fever, Rec. XI, 696.

root blight of sugar beets, Rec. IV, 518.

wheat smut, Rec. II, 221.

wash for sheep ticks, Rec. V, 264.

Carbolic soap for rose aphid, Rec. X, 661.

Carbolized plaster—

as an insecticide, Rec. II, 63.

for cherry slug, Rec. IV, 416.

Carbon—

and nitrogen—

evolution in living world, Rec. XII, 25.

in organic matter, simultaneous determination, Rec. IV, 983; V, 253.

assimilation, Rec. XII, 615.

compounds in humus, Rec. X, 920.

Carbon—Continued.

- determination, Rec. XII, 20.
- determination in organic substances, Rec. IX, 116; XI, 311.
- fixation by leaves, Rec. XI, 1015.
- metabolism of, Rec. XI, 374.

Carbon bisulphid—

- as a fertilizer, Rec. VII, 32, 197; X, 1032.
- an antiseptic, Rec. XII, 168.
- insecticide, Rec. II, 63, 71; III, 813; IV, 932; V, 63, 410, 517; VI, 568, 655, 1006, 1007; VII, 41, 43, 515, 696, 882; X, 273; XI, 474; XII, 168, 665.

cover for fumigation, Rec. VI, 1003.

effect on—

- denitrifying organisms of manure, Rec. VII, 25.
 - exhausted soils, Rec. VII, 98.
 - fungi and ferments, Rec. VII, 928.
 - germination of seeds, Rec. VIII, 498.
 - plants, Rec. VIII, 40, 498.
 - silage, Rec. XII, 822.
 - soil fertility, Rec. X, 831.
 - vitality of seed, Rec. IX, 652.
 - vitality of sorghum seeds, Rec. V, 593.
 - yield of crops, Rec. VI, 564.
 - for Angoumois grain moth, Rec. V, 323.
 - ants, Bul. 2, I, 101.
 - aphides, Rec. XI, 473.
 - barley smut, Rec. X, 156.
 - bean weevil, Rec. IV, 666; VIII, 68.
 - beet seed, Rec. XI, 955.
 - beet sickness, Rec. XI, 262.
 - cabbage root maggot, Rec. VII, 41.
 - cigarette beetle, Rec. X, 1069.
 - coffee root rot, Rec. X, 456.
 - crayfish, Rec. VIII, 416.
 - extracting fat, Rec. XII, 308.
 - four-spotted pea weevil, Rec. VIII, 503.
 - foul brood of bees, Rec. IX, 677.
 - gophers, Rec. VII, 20.
 - grain beetles, Rec. III, 452, 702.
 - grain insects, Rec. XII, 581.
 - grain weevils, Rec. IV, 84, 253.
 - hen lice, Rec. V, 328.
 - melon lice, Rec. VI, 650.
 - nematodes, Rec. V, 916; VI, 147.
 - oat smut, Rec. II, 639.
 - pea weevils, Rec. III, 359; VIII, 68.
 - phylloxera, Rec. X, 373.
 - red ants, Rec. IX, 772.
 - spermophiles, Rec. V, 417.
 - squirrels, Rec. V, 386.
 - sugar-cane grub, Rec. VIII, 70.
 - wheat smut, Rec. II, 221.
 - woodchucks, Rec. VII, 929.
 - woolly aphis, Rec. IX, 155.
 - formation by *Schizophyllum lobatum*, Rec. VIII, 290.
 - manufacture and uses, Rec. IV, 173; XI, 619.
- Carbon dioxid—
- addition to still wines, Rec. VIII, 348.
 - and oxygen exchange between plants and air, Rec. IV, 448, 517, 678, 870; V, 729.
 - water, exhalation from the skin, Rec. IV, 986.

Carbon dioxid—Continued.

- assimilation by plants, Rec. IV, 613, 871; V, 434, 614.
 - determination, Rec. VII, 271, 652, 921; VIII, 105, 861, 954; XI, 213.
 - determination—
 - apparatus for, Rec. VIII, 106, 954; XI, 313.
 - in air of buildings, Rec. IV, 313.
 - carbonates, Rec. XII, 418.
 - minerals, Rec. X, 717.
 - natural waters, Rec. IX, 620.
 - soils, Rec. XI, 503.
 - effect on—
 - atmospheric absorption, Rec. XII, 833.
 - diastatic and peptic ferments of animal body, Rec. IV, 987; V, 732.
 - form and structure of plants, Rec. X, 610; XII, 109.
 - germination of seeds, Rec. V, 257.
 - growth of leaves, Rec. VIII, 203.
 - nitrification, Rec. XII, 722.
 - protoplasm of living plant cells, Rec. VII, 839.
 - water transportation in plants, Rec. XII, 519.
 - elimination by animals, amount, Rec. IV, 449.
 - excretion as affected by consumption of water, Rec. X, 481.
 - formation, Rec. V, 729; VII, 921; IX, 25.
 - formation by detached leaves, Rec. VI, 277.
 - for preserving milk, Rec. IV, 519; V, 1047.
 - preserving vegetables, Rec. II, 239.
 - souring milk, Rec. V, 1047.
 - in aquatic plants, effect on electric currents, Rec. VIII, 380.
 - drinking and mineral waters, studies, Rec. VI, 273.
 - fruit shipping, Rec. VI, 638.
 - inspired air, Rec. X, 1089.
 - manure, percentage, Rec. V, 147.
 - soil atmosphere, effect on plants, Rec. V, 539.
 - soils—
 - diffusion as affected by physical conditions, Rec. III, 927.
 - formation, Rec. IV, 637.
 - pressure as affecting vegetation, Rec. IV, 517.
 - of the atmosphere, Rec. IV, 222; VI, 196; X, 424; XII, 526.
 - atmosphere, effect on temperature of the ground, Rec. VII, 929.
 - ocean as related to that of the atmosphere, Rec. XI, 622.
 - v. yeast for bread making, Rec. V, 733.
- Carbon monoxid—
- in air, determination, Rec. X, 118.
 - animal body, Rec. X, 885.
 - blood, determination, Rec. X, 118.
- Carbonate and phosphate of lime in food of animals, Rec. V, 1101.
- Carbonate of lime. (See CALCIUM CARBONATE.)
- Carbonate of potash. (See POTASSIUM CARBONATE.)
- Carbonate of soda. (See SODIUM CARBONATE.)

- Carbonated beverages, analyses, Rec. XII, 279, 280.
- Carbonates—
alkaline, determination, Rec. IX, 36.
reagents for, Rec. XII, 20.
- Carbonates of soda, detection in milk, Rec. XII, 908.
- Carbonic acid. (See CARBON DIOXID.)
- Carcasses, treatment with sulphuric acid, Rec. XII, 131.
- Carcinoma in cattle, Rec. XII, 691.
- Card waste, analyses, Rec. VIII, 117.
- Cardamine pratensis*, destruction by copper sulphate, Rec. XII, 350.
- Cardamom seeds, analyses of ash, Rec. X, 1005.
- Cardiaspis artifex*, notes, Rec. IX, 1070.
- Cardoon—
culture experiments, Rec. VIII, 313.
fertilizer formula, Rec. XII, 851.
varieties, Rec. VII, 405.
- Carduus*—
arvensis, notes, Rec. VIII, 794.
(See also THISTLE, CANADA.)
lanceolatus, notes, Rec. VIII, 794.
pycnocephalus, notes, Rec. VII, 38.
- Carex—
acuta. (See SEDGE, BOG.)
alba, notes, Rec. XI, 353.
ampullacea—
analyses, Rec. IV, 769, 770.
notes, Rec. IV, 772.
arenaria, notes, Rec. V, 912.
aristata, notes, Rec. VI, 404.
cæspitosa. (See SEDGE, BOG, SMALLER.)
filiformis. (See SEDGE, SLENDER-LEAFED.)
goodenoughii, analyses, Rec. X, 1022.
irrigua—
analyses, Rec. IV, 769, 770.
notes, Rec. IV, 772.
n. sp., notes, Rec. VII, 563; IX, 227.
retroscia, notes, Rec. VI, 404.
rupestris, notes, Rec. II, 321.
siccata, notes, Rec. VI, 404.
sp., anatomy, Rec. VIII, 289.
sp., notes, Rec. X, 343.
stenophylla, notes, Rec. VI, 404.
straminea, notes, Rec. VI, 404.
stricta, notes, Rec. VI, 404.
syncephala, notes, Rec. VI, 404.
vulpinoidea, notes, Rec. VI, 404; X, 343.
- Carex—
destruction, Rec. IX, 455.
notes, Rec. IV, 677; V, 450
- Caribbean guano, availability of phosphoric acid in, Rec. IV, 132.
- Carica papaya*, notes, Rec. III, 597; VI, 636.
- Carissa ovata*, poisonous to stock, Rec. XI, 1057.
- Carnallit—
ammonium chlorid in, Rec. III, 581; VIII, 767.
v. kainit as a fertilizer, Rec. V, 548.
- Carnation—
anthracnose, notes, Rec. VII, 141; VIII, 412.
bacteriosis, Rec. VIII, 235, 898; IX, 251, 327, 657, 852.
bud disease, Rec. IX, 958.
diseases—
in Germany, Rec. X, 865.
notes, Rec. IV, 53; V, 926, 1030; VI, 825, 826, 832; X, 262; XI, 860; XII, 460.
- Carnation—Continued.
fairy ring—
notes, Rec. XII, 263.
treatment, Rec. IX, 958; X, 267.
fusarium leaf spot, notes, Rec. XII, 56.
leaf spot, notes, Rec. IV, 54; VII, 141; VIII, 898.
maggot, notes, Rec. VIII, 898.
mite, notes, Rec. IX, 772.
rust—
experiments, Rec. VII, 695.
notes, Rec. IV, 54; VII, 141, 311; VIII, 61, 238, 608, 801, 898, 899, 996; X, 260; XI, 314; XII, 262, 419.
parasite, Rec. XII, 358.
treatment, Rec. V, 309; VI, 234; VII, 402, 695, 788, 789; IX, 958; X, 260, 453.
stem rot—
notes, Rec. X, 262, 561, 764, 1054; XII, 571, 966.
treatment, Rec. XII, 763.
"twitter," notes, Rec. V, 514, 875; VI, 440, 740.
- Carnations—
abnormal, Rec. VII, 788.
aerial roots, Rec. VI, 873.
analyses, Rec. IV, 44.
breeding, Rec. XI, 453.
Colletotrichum on, Rec. IV, 54.
crossing, Rec. IX, 451.
crossing experiments, Rec. XII, 752.
culture, Rec. VII, 309, 506, 586; VIII, 601, 602, 701; IX, 247; X, 855.
fertilizer experiments, Rec. IX, 556; X, 248.
fertilizer experiments in forcing, Rec. XII, 550.
fertilizers for, special, Rec. III, 290.
fertilizing constituents removed from soil by, Rec. X, 248.
growing under glass all summer, Rec. XI, 937.
hardy, notes, Rec. V, 875.
hybridization, Rec. XII, 1046.
improvement in America, Rec. XII, 954.
injury by variegated cutworm, Rec. IV, 285.
insects affecting, Rec. XI, 1065.
nitrate of potash for, Rec. III, 290.
old and new, Rec. VIII, 231.
production of new varieties from seed, Rec. X, 963.
recent introductions, Rec. X, 855.
subwatering, Rec. IX, 1053; XII, 1046.
tobacco thrips on, remedies, Rec. XI, 1065.
varieties, Rec. IX, 650; XI, 154.
water requirements, Rec. IX, 952.
- Carneades*— (See also CUTWORMS and AGROTIS.)
insignata, notes, Rec. XII, 861.
messoria—
means of repression, Rec. V, 403.
notes, Rec. II, 719; III, 792; VI, 915; IX, 257, 261; X, 661; XI, 62; XII, 266.
ochrogaster, notes, Rec. IX, 856; X, 165.
scandens—
notes, Rec. VIII, 65, 241.
remedies, Rec. XI, 862.
tessellata, notes, Rec. II, 719; XII, 861.
- Carniolan—
and Syrian bees, cross breeding, Rec. II, 496.
bees, experiments, Rec. II, 662.
- Carnivora, amylaceous digestion, Rec. XI, 778.
- Carnivorous slugs, Rec. IX, 574.

- Carnosin, notes, Rec. XII, 822, 1076.
- Carob bean—
analyses, Rec. XII, 70.
as a feeding stuff, Rec. IX, 1078.
nutritive value, Rec. IX, 1078.
pods, analyses, Rec. XII, 70.
- Carob seed—
composition of endosperm, Rec. XI, 1056.
germination, Rec. XI, 1056.
- Carob tree—
distribution, Rec. III, 597.
notes, Rec. VIII, 701.
- Carolina sphinx, notes, Rec. X, 167.
- Carpenter moth, locust tree, Rec. III, 47.
- Carpenter worm, notes, Rec. IX, 964, 1065; X, 68.
- Carpet beetle—
black—
notes, Rec. VI, 1007; IX, 64, 66; XI, 955.
remedies, Rec. VIII, 241, 418.
buffalo—
notes, Rec. VI, 1007; IX, 458, 858; X, 1066
XI, 955; XII, 367.
remedies, Rec. VIII, 241.
remedies, Rec. XI, 561.
- Carpet grass—
analyses, Rec. XII, 234.
notes, Rec. II, 601, 658; IV, 248; X, 547; XI, 154.
- Carpet weed, root system, Rec. IV, 46.
- Carphoxera ptelearia*—
n. sp., notes, Rec. III, 414.
notes, Rec. IV, 373.
- Carpinus*—
americana, notes, Rec. IV, 654.
betulacea, gummosis, Rec. VI, 233.
caroliniana, notes, Rec. VII, 134.
- Carpinus* leaves, relation to hexenbesens, Rec. VII, 965.
- Carpocapsa*—
pomonella. (See CODLING MOTH.)
splendana—
in walnuts, Rec. VII, 699.
notes, Rec. XI, 766.
- Carpoglyphus (Acarus) passalarum*, notes, Rec. IX, 895.
- Carpophilus*—
brachypterus, notes, Rec. II, 328; IV, 839.
pullipennis, notes, Rec. III, 702; VII, 43.
- Carrageen moss—
analyses, Rec. IV, 715.
notes, Rec. IV, 715.
- Carrión beetle—
squash, Rec. VI, 654.
vegetarian, notes, Rec. VI, 442.
- Carrot—
blight, Rec. X, 447.
fly—
notes, Rec. VI, 740; IX, 160.
remedies, Rec. VIII, 911.
giant, culture experiments, Rec. VII, 764.
moth, golden-washed, notes, Rec. VII, 231.
root rot, notes, Rec. III, 307.
rust fly—
notes, Rec. X, 866; XI, 957.
remedies, Rec. XI, 559, 863.
tops, analyses, Rec. II, 580.
- Carrot—Continued.
wild—
amelioration by grafting, Rec. XI, 250.
analyses, Rec. III, 629.
eradication, Rec. XI, 749.
fennel grafted on, Rec. V, 1089.
notes, Rec. III, 308, 598, 893; IV, 472; V, 398, 529; VII, 135; VIII, 866, IX, 143, 454; XI, 354.
root system, Rec. IV, 46.
- Carrots—
analyses, Bul. 2, II, 78; Rec. II, 580; III, 159; IV, 59, 437; V, 66, 992; VI, 37, 294, 402, 569; VII, 296, 336; VIII, 152; IX, 806; X, 678, 839.
ash analyses, Rec. XI, 38.
culture, Rec. III, 159; IX, 131, 241, 357, 446, 1047; X, 42; XI, 241.
culture—
and use, Rec. VIII, 974.
experiments, Rec. II, 580; IV, 725; VI, 294, 532, 807, 985; VIII, 223, 313, 407, 700; XI, 832; XII, 536.
depth of planting, Rec. XI, 631.
effect of electricity on, Rec. V, 906.
evaporated, food value, Rec. XII, 980.
experiments in India, Rec. V, 333.
fertilizer—
experiments, Rec. V, 171; VI, 890; VII, 579; IX, 830; IX, 38, 833, 842; XII, 1037.
formula, Rec. XII, 851.
forcing, Rec. X, 354, 962.
germination test, Rec. V, 628.
grafted on parsnip, Rec. V, 1089.
grafting with wild carrot, Rec. X, 549.
influence on quality of butter, Rec. V, 724.
introduction into England, Rec. IX, 551.
nematode on, Rec. V, 1011.
notes, Rec. V, 624, 783, 785, 910; X, 547; XI, 850, 1047; XII, 936.
planting at different depths, Rec. X, 238.
thinning, Rec. X, 238.
nutritive value, Rec. VII, 209; XI, 73.
varieties, Bul. 2, I, 33; Bul. 2, II, 88, 135; Rec. I, 87, 123, 254; II, 4, 6, 7, 69, 109, 349, 392, 395, 597, 598, 607, 669; III, 85, 128, 307, 356, 480; IV, 436, 766, 819; V, 189, 623, 625; VI, 36, 293, 416, 418, 419, 890; VII, 124, 125, 203, 579, 580, 581, 676; VIII, 792, 888, 889, 973, 977; IX, 827, 829, 830, 832, 833; X, 836, 846, 1034; XI, 57, 631, 842; XII, 135, 229.
v. mangel-wurzels, nutritive value, Rec. VII, 209.
- Cars as disseminators of plants, Rec. X, 418.
- Cartharia pyrenæalis*, life history, Rec. XII, 272.
- Carthylus columbianus*, notes, Rec. V, 1078.
- Carya*— (See also HICORIA.)
alba, notes, Rec. II, 412; III, 521.
amara, notes, Rec. II, 412; III, 521; IV, 654.
porcina, notes, Rec. III, 521.
sulcata, notes, Rec. III, 521.
tomentosa—
ash analyses, Rec. I, 26.
notes, Rec. III, 521.
- Caryophyllaceæ, notes, Rec. V, 912.
- Caryophyllaceous hybrids, Rec. X, 519.
- Caryopsis of grasses, structure, Rec. XI, 423.
- Casabanana, culture in Louisiana, Rec. VII, 808.
- Case bearers, Rec. VIII, 611.

- Case maker, pretty little, Rec. X, 168.
 Case making clothes moth, Rec. X, 655.
 Case moths, Australian, notes, Rec. XI, 658.
 Casein—
 analyses, Rec. XI, 313.
 as affected by—
 freezing, Rec. XI, 886.
 heat, Rec. V, 1008.
 micro-organisms, Rec. XI, 1085.
 cause of change in pasteurized cheese, Rec. XI, 981.
 centrifugal separation from milk, Rec. VIII, 725.
 chemistry, Rec. III, 929; V, 922, 958, 1008; VI, 165.
 cleavage—
 by hydrochloric acid, Rec. IX, 808.
 products in pancreatic digestion, Rec. X, 976.
 curd, analyses, Rec. VI, 110.
 digestion—
 as affected by phosphorus, Rec. V, 252, 428, 960.
 peptic, Rec. V, 822.
 products, Rec. VI, 1023; X, 514.
 effect on excretion of phosphorus, Rec. IX, 275.
 in cheese, determination, Rec. IV, 116.
 feces, determination, Rec. IX, 917.
 human milk, study, Rec. VI, 165.
 lactic acid fermentation, fate, Rec. VII, 338.
 in milk—
 determination, Rec. III, 497; V, 260, 511, 543; VI, 966; VII, 921; VIII, 861.
 of different breeds, Rec. V, 945.
 reduction of proportion, Rec. VIII, 933.
 relation to fat, Rec. II, 68; III, 475; V, 895; VII, 159.
 study, Rec. VI, 165.
 in oats, Rec. III, 11.
 skim milk, food value, Rec. XII, 169.
 manufacture for industrial purposes, Rec. XII, 485.
 nature and properties, Rec. V, 959, 1008.
 nutritive value, Rec. VIII, 513; XII, 169, 478.
 organic phosphorus of, Rec. V, 727, 922.
 passage of solutions through porcelain, Rec. IV, 870.
 phosphorus and sulphur in, Rec. V, 1009.
 preparation, Rec. XII, 196.
 preparation from skim milk, Rec. X, 592.
 protealbumoses, nutritive value, Rec. XII, 478.
 relation to lactic fermentation, Rec. IV, 987; V, 247, 260, 656, 814, 1045; VII, 158.
 solution by—
 bacteria, Rec. VIII, 742.
 pepsin hydrochloric acid, Rec. VIII, 466.
 studies on, Rec. V, 958, 1008.
 utilization, Rec. X, 89.
 Caseon—
 as a substitute for albumen, Rec. XII, 177.
 digestibility, Rec. XI, 672.
 Caseous broncho-pneumonia of sheep, Rec. XI, 696.
 Cashew—
 [mesquite] poisoning, Rec. IX, 1091.
 nut, notes, Rec. VI, 636; VIII, 231.
Casimiroa pubescens, notes, Rec. VIII, 108.
 Cassareep culture in Paraguay, Rec. XII, 337.
 Cassava—
 analyses, Rec. VI, 818; X, 678; XI, 377; XII, 1076.
 as a feeding stuff, Rec. XI, 376.
 culture, Rec. VIII, 128; X, 42.
 culture—
 experiments, Rec. VI, 635, 636; IX, 243; XII, 1036.
 in Florida, Rec. XII, 337.
 Island of Réunion, Rec. V, 540.
 Java, Rec. XII, 1076.
 Paraguay, Rec. XII, 337.
 digestibility, Rec. XII, 779.
 fertilizer experiments, Rec. XI, 334.
 notes, Rec. III, 444; V, 587; XI, 1037.
 plant, notes, Rec. XII, 745.
 scale, notes, Rec. X, 973.
 starch, manufacture, Rec. XII, 994.
 (See also footnote, p. 70.)
 Cassavas, sweet and bitter, Rec. XI, 442.
 "Casse des vins," Rec. IX, 696.
 Cassia as an insecticide, Bul. 2, II, 87.
 Cassia—
 marylandica, heliotropism, Rec. V, 827.
 occidentalis, notes, Rec. IX, 140.
 sophora, poisonous to stock, Rec. XI, 1057.
 Cassida—
 bivittata—
 notes, Rec. III, 309; XI, 62.
 remedies, Rec. IV, 58.
 nigripes, notes, Rec. III, 309; XI, 62.
 pallida, notes, Bul. 2, I, 179.
 texana, notes, Rec. III, 812.
 Castanea— (See also CHESTNUT.)
 americana, notes, Rec. IV, 654.
 dentata, notes, Rec. VIII, 230.
 japonica, notes, Rec. VIII, 230.
 pumila, notes, Rec. VIII, 230.
 sativa—
 as a honey plant, Rec. VII, 791.
 notes, Rec. VIII, 230.
 vulgaris, ash analyses, Rec. I, 26.
 Castanopsis *crysophylla*, notes, Rec. VIII, 230.
 Castile soap—
 for oat smut, Rec. II, 639.
 wheat smut, Rec. II, 221.
 Castilloa *elastica*—
 as a source of rubber, Rec. XI, 1049.
 notes, Rec. VI, 251; VIII, 471.
 Castnia *cronis cornigii*, notes, Rec. II, 746.
 Castor bean—
 cake—
 analyses, Rec. XI, 137.
 as a fertilizer, Rec. VII, 490.
 fertilizer constituents, Rec. IX, 343.
 germinating seed, analyses, Rec. V, 528.
 germination, Rec. V, 527, 881.
 globulins of, Rec. IV, 934.
 meal—
 digestibility, Rec. IX, 165.
 for cows, Rec. XII, 590.
 poisoning, Rec. X, 896; XI, 287.
 poisoning—
 antitoxin, Rec. IX, 526.
 cattle by feeding cake adulterated with, Rec. V, 914.
 treatment, Rec. IX, 193.

Castor oil—

- active constituents, Rec. X, 313.
- for hogs poisoned by cockle seed, Rec. V, 813.
- manufacture, Rec. X, 195.

plant—

- culture, Rec. VII, 867; VIII, 496, 700; IX, 197; X, 749.
- culture and uses, Rec. XII, 1037.
- culture experiments, Rec. IV, 725; VI, 819; X, 240; XII, 230.
- fertilizing constituents, Rec. X, 341.
- in India, Rec. V, 134, 333, 435.
- notes, Rec. XI, 287.
- roots, ash analyses of soil from, Rec. XI, 277.
- varieties, Rec. XI, 1036.
- pressing, Rec. VII, 719.
- properties, Rec. VII, 257.
- tree moth, notes, Rec. IX, 768.

Castor pomace—

- analyses, Rec. I, 17; II, 101, 481; III, 8, 764; IV, 902; V, 777; VI, 287; VII, 195; VIII, 389; IX, 538; X, 230; XI, 719; XII, 129, 626, 931.
- as a fertilizer for corn, Rec. III, 858.
- cost of nitrogen from, Bul. 2, I, 39.
- detection in feeding stuffs, Rec. IV, 211.
- for grasses, Rec. IV, 133.
- millet, Rec. IV, 133.
- tobacco, Rec. IV, 908, 909; V, 864, 865; VII, 208; IX, 544.

Castoridæ in Idaho, Rec. III, 184.

Castration—

- effect on excretion of phosphoric acid, Rec. XI, 483.
- elongation of posterior members due to, Rec. VII, 893.
- scrotal hernia of stallions due to, Rec. VII, 987.

Casuarina—

- fungus disease, notes, Rec. XII, 966.
- notes, Rec. XI, 458.

Casuarineæ, comparative anatomy, Rec. VI, 279.

Cat—

- and dog flea, notes, Rec. IX, 254; X, 766; XI, 263.
- new tapeworm, Rec. IX, 193.

Catabomba pyrastris, notes, Rec. VI, 741.*Catabrosa aquatica*, notes, Rec. II, 321.

Catalpa—

- plantation, notes, Rec. XII, 453.
- planting in the West, Rec. VI, 549.
- sphinx—
 - notes, Rec. V, 884; IX, 463.
 - remedies, Rec. XI, 956.
- trees at Illinois Station, Rec. V, 303.

Catalpa speciosa, notes, Rec. IV, 654; XII, 153.

Catalpas, cultivated, notes, Rec. XII, 898.

Catappa nut, notes, Rec. VIII, 231.

Catarrh—

- malignant, of cattle, Rec. XII, 490, 890, 892.
- of poultry, notes, Rec. XII, 894.

Catasetum, new species, Rec. X, 440.

Catastega aceriella, notes, Rec. VI, 915, 1068.

Catbird—

- food habits, Rec. VIII, 750.
- notes, Rec. IX, 230.

Catch cropping, history of practice, Rec. XI, 926.

Catch crops—

autumn—

- culture, Rec. V, 128, 419, 740; VI, 720.
- for green manuring, Rec. XI, 829.
- culture, Rec. IX, 446; XI, 242.
- fertilizer experiments, Rec. XII, 337.
- for conserving nitrogen in soils, Rec. V, 15; VII, 682; VIII, 126.
- nitrogen in, Rec. V, 420.
- notes, Rec. XII, 328.
- selection, Rec. XI, 538.
- serradella for, Rec. VII, 32.
- vetch and peas for, Rec. IX, 941.
- vetches for, Rec. VIII, 779.
- white mustard and crimson clover for, Rec. VII, 121.

Catchflies, notes, Rec. III, 598, 599; VII, 690, 872.

Catechu and Katti, Rec. VII, 719.

Caterpillar—

- callalu, analyses, Rec. XI, 249.
- cocoons, protection, Rec. VIII, 910.
- lime, Ermisch's, Rec. VIII, 712.
- of dagger moths, Rec. IV, 839.
- spiny elm, notes, Rec. XII, 167.

Caterpillars—

- attacking cocoa trees, Rec. VII, 146.
- bacteria in, Rec. V, 819; VI, 65, 655.
- destruction by birds, Rec. XI, 953.
- fiery ground beetle as enemy of, Rec. V, 206.
- grease mixtures for, Rec. VII, 307.
- infesting clover, notes, Rec. II, 719.
- notes, Rec. V, 498, 884; VI, 317; VIII, 148, 418, 909.
- on conifers, Rec. VII, 793.
- ravages in Algeria, Rec. VIII, 507.
- repression, Rec. IX, 471.
- wood-boring, Rec. XII, 166.

Caterva catenaria, notes, Rec. IV, 839.

Cathartidæ, feeding habits, Rec. XI, 425.

Cathartus—

- advena*, notes, Rec. IX, 66, 368.
- gemellatus*, notes, Rec. VII, 515; VIII, 610.

Cathestecum erectum, notes, Rec. II, 259.

Catley guava, notes, Rec. VI, 636.

Catnip—

- notes, Rec. V, 398, 390.
- root system, Rec. IV, 46.

Catocala—

- faustina carlota*, notes, Rec. IX, 1070.
- grynea*, notes, Rec. IV, 204.
- lacrymosa* in Mississippi, Rec. X, 570.
- stretchii sierræ*, notes, Rec. IX, 1070.

Catocala of central Michigan, Rec. IV, 416.

Catolaccus—

- anthonomi* on *Anthonomus signatus*, Rec. IV, 699.
- incertus* on *Anthonomus signatus*, Rec. IV, 699.
- spp., notes, Rec. IV, 852.
- tyloderma*, notes, Rec. V, 311, 312.

Catorama punctulata, notes, Rec. VIII, 610.

Cats—

- digestion experiments, Rec. VIII, 821; XI, 874.
- metabolism experiments, Rec. X, 80; XI, 483.
- red, immunity, Rec. XI, 712.
- respiration experiments, Rec. X, 80.

Catsup, analyses, Rec. X, 281.

Cat-tail—

grass—

analyses, Rec. II, 487.

notes, Rec. II, 487.

millet, notes, Bul. 2, I, 189.

Cattle—

abnormal appetite, Rec. X, 893.

abortion, Rec. VI, 165; XI, 696.

and buffaloes of Assam, Rec. VII, 64.

horse raising in sugar-beet farming, Rec. VIII, 521.

meat supply of Germany, Rec. VI, 756.

sheep, neoplasma, Rec. IX, 497.

horses in their relation to climate, Rec. V, 655.

apple pomace as food for, Rec. V, 439.

at Louisiana Station, notes, Rec. XII, 878.

Ayrshire, notes, Rec. XI, 983.

barn, bacteria in air of, Rec. VIII, 168.

beef— (*See also* STEERS.)corn meal *v.* wheat meal for, Rec. VIII, 77.

corn stover for, Rec. VIII, 77.

cost of wintering, Rec. XI, 1084; XII, 282.

cotton-seed meal and hulls for, Rec. VII, 413, 730.

feeding experiments, Bul. 2, I, 65; Rec. VII, 413.

gluten meal *v.* linseed meal for, Rec. VIII, 77.

grass for, Rec. VIII, 77.

potatoes for, Rec. VI, 163.

sheltering, Rec. VIII, 777.

silage *v.* corn stover for, Rec. VIII, 77.

biting louse, remedies, Rec. VIII, 806.

blackleg of. (*See* BLACKLEG.)

bloody urine, Rec. VII, 987.

bread, analyses, Rec. IX, 266.

breeding, Rec. V, 129, 1034; VII, 155; VIII, 720; IX, 688.

breeding—

experiments, Rec. XI, 1076.

Government measures for promoting, Rec. V, 258.

in Belgium, Rec. VII, 64.

the Tyrol, Rec. VIII, 472.

breed— (*See also* Cows and STEERS.)

tests, Rec. VI, 572; VII, 324, 337.

traits, Rec. VIII, 427.

breeds—

history, Rec. IX, 176; X, 379.

notes, Rec. II, 642; VII, 64, 155, 337, 891; VIII, 157; IX, 983; X, 184, 492.

proportionate weight of different parts of, Rec. V, 1101.

brewers' grains for, Rec. IX, 175.

British—

exports, Rec. VII, 532.

improvement, Rec. VI, 468.

broncho-pneumonia, Rec. X, 893.

Channel Islands, Rec. VIII, 427.

condition, Rec. III, 813.

condition in the Southwest, Rec. V, 608.

contagious inflammation of cornea, Rec. I, 125.

cooking food for, Rec. V, 825.

cornstock disease, Rec. I, 124; VIII, 81, 522; X, 494.

Cattle—Continued.

cotton-seed—

hulls and meal for, Rec. VI, 921.

meal for, Rec. II, 176; V, 686.

crossing with zebus, Rec. VII, 617.

Danish, export, Rec. VIII, 1034.

dehorning, Rec. IV, 187; V, 204; VI, 666; VII, 155; X, 395; XI, 894; XII, 798.

Devon, notes, Rec. XI, 983.

dipping apparatus, Rec. IX, 96.

disease—

contagious, Rec. V, 823, 927; X, 190.

in Kansas, Rec. XI, 996.

new, Bul. 2, I, 111; Rec. IX, 659.

parasitic, in China, Rec. XI, 289.

resembling foot-and-mouth disease, studies, Rec. XII, 92.

resembling rabies, Rec. VIII, 83; XI, 291.

domestic, origin, Rec. X, 679.

Dutch, Rec. V, 733.

Dutch—

Belted, notes, Rec. XI, 983.

breeds, Rec. VIII, 427.

effects of—

Bhakha plant on, Rec. VI, 245.

locality, Rec. VIII, 157.

potato pulp, fermented, on, Rec. V, 130.

enzootic ophthalmia in, Rec. XII, 92.

ergotism in, Rec. IV, 188, 925; VII, 67.

European—

breeds, Rec. VI, 468.

domesticated, Rec. VIII, 427.

fattening, Rec. X, 780.

fattening, cost, Rec. II, 178.

faulty appetite, Rec. III, 244.

feed, sweetening, Rec. II, 177.

feeding, Rec. VIII, 175.

feeding— (*See also* STEERS, FEEDING.)

and management, Rec. V, 71, 688.

barn for, Rec. XI, 295.

cotton-seed products for, Rec. II, 175.

experiments, Rec. II, 175, 196, 411; IX, 75, 476, 869; X, 984; XI, 376, 381.

for beef, Rec. V, 349; VII, 413.

principles, Rec. I, 283.

twigs, Rec. V, 822.

feeds— (*See also* FEEDING STUFFS.)

and feeding rations, Rec. I, 266; II, 591.

in California, Rec. IV, 732; V, 596.

patent, tests, Rec. III, 877; IV, 568; V, 566.

fodder crops for, Rec. IX, 887.

gadfly larvæ, Rec. X, 167.

gastric fever in, Rec. VII, 712.

gastro enteritis, Rec. X, 597.

gaunts, notes, Rec. IV, 263.

German breeds, Rec. X, 492.

growth, Rec. VII, 523; X, 382.

Guernsey—

experiments, Rec. II, 162, 499.

in Germany, Rec. VII, 891.

notes, Rec. XI, 983.

helminthiaris nodularis, Rec. XI, 91.

hematuria of, Rec. XI, 894.

Hereford breed, Rec. VII, 337.

history, Rec. X, 584.

Cattle—Continued.

Holstein—

notes, Rec. II, 147, 642; XI, 983.

pedigree, Rec. II, 4.

hoof disease, Rec. V, 259.

hornless, of North Europe, Rec. IX, 786.

hygiene, Rec. XI, 592.

Illyrian breed, Rec. VIII, 157.

importance of mineral constituents of plants, Rec. VIII, 157.

importation into Great Britain, Rec. XI, 999.

Indian breeds, Rec. VII, 891.

industry, Rec. VIII, 427.

industry—

in Colorado, Rec. V, 608.

of Colorado, Wyoming, and Nevada, Rec. XI, 972.

injuries from swallowing pointed objects, Rec. VIII, 626.

inspection laws of various States and countries, Rec. XI, 591.

in Germany, tuberculosis in, Rec. V, 1063.

itch, notes, Rec. XII, 488.

Jersey—

management, Rec. XI, 489.

notes, Rec. II, 147, 642; XI, 983.

pedigree, Rec. II, 4.

types, Rec. XI, 688.

June beetle as food for, Rec. XI, 174.

Jutland breed, Rec. IX, 983.

Korean, diseases among, Rec. V, 608.

lameness, treatment, Rec. VII, 892.

laryngeal syngamus, Rec. XI, 92.

lice—

notes, Rec. I, 45.

remedies, Rec. I, 45.

liver fluke, notes, Rec. II, 318; III, 502; IV, 749.

lumpy jaw. (*See* ACTINOMYCOSIS.)

macrozamia roots, effect on, Rec. XI, 894.

maintenance ration, Rec. X, 1079; XI, 483.

malaria, Rec. IX, 193.

mange, sarcoptic, notes, Rec. XII, 685.

manure—

amount voided by, Rec. V, 634.

analyses, Rec. VIII, 485.

concentrated, Rec. V, 346.

measles, Rec. IX, 274.

measuring band, Kjellestrom's, Rec. VI, 468.

measuring external conformation, Rec. XI, 577.

native—

and grade Angus for beef production, Rec. XII, 282.

of Gotland, Rec. X, 482.

Normandy, notes, Rec. XI, 983.

oak leaves for, Rec. V, 264.

of Finland, Rec. VII, 616.

Hungary, Rec. XI, 381.

Kumaon, Rec. XI, 576.

parturition in, Rec. V, 439.

pasturage, Rec. II, 209.

peanut hulls for, Rec. V, 439.

plague. (*See* RINDERPEST.)

pleurisy in, Rec. XII, 892.

poisoning by— (*See also* PLANTS POISONOUS TO STOCK.)

acorns, Rec. VI, 472.

Æthusa minor, Rec. XI, 796.

Cattle—Continued.

poisoning by—continued.

Cicuta vagans, Rec. IX, 892.

Conium maculatum, Rec. XI, 796.

cotton-seed meal, Rec. V, 733, 825.

Lathyrus clymenum, Rec. VII, 526.

Lathyrus sativus seed, Rec. VI, 472.

leaves of the yew tree, Rec. V, 1033.

lupines, Rec. XI, 995; XII, 891.

Macrozamia moorei, Rec. XI, 1057.

Macrozamia spiralis, Rec. XI, 696.

moldy hay, Rec. XI, 796.

nitrate of potash, Rec. VII, 250; X, 794.

nitrate of soda, Rec. VII, 66, 526.

oil cakes, Rec. V, 733.

oil cakes adulterated with castor bean Rec. V, 914.

rape-seed cake, Rec. XI, 92.

reed meadow grass, Rec. XI, 796.

salt peter, Rec. X, 794.

sesame cake, Rec. XII, 595.

smutty grass, Rec. XII, 791.

smutty oat hay, Rec. XII, 891.

sorghum, Rec. XII, 486.

tall larkspur, Rec. XII, 891.

water hemlock, Rec. XII, 791, 891.

yew leaves, Rec. V, 1033.

zamia, Rec. X, 497.

Zygadenus paniculatus, Rec. X, 297.

poisoning, examination, Rec. VI, 274.

polled—

Angus, pedigrees, Rec. II, 4.

breeds, Rec. VII, 64.

Durham, notes, Rec. XI, 983.

origin, Rec. X, 184.

potatoes for, Rec. V, 813; VI, 163, 573; VII, 64, 248, 616.

preparation of concentrated food for, Rec. V, 349.

prickly pear for, Rec. IX, 275.

psoroptic mange, Rec. VII, 315.

quarantine regulations, Rec. XI, 997.

raising—

and dairying, Rec. IX, 290.

cost, Rec. XI, 1077.

in Argentina, Rec. X, 282.

Denmark, Rec. IX, 88.

Egypt, Rec. XII, 877.

Germany, Rec. IX, 88.

Great Britain, Rec. IX, 88.

Holland, Rec. IX, 88.

Norway, Rec. VII, 985.

ranges—

of the Southwest, exhaustion and renewal, Rec. X, 147.

renewal, Rec. XI, 220.

rations in time of scarcity of feed, Rec. V, 258, 439.

red—

Danish, Rec. X, 83.

poll, notes, Rec. XI, 983.

spotted, of the lower Rhine, Rec. VII, 616.

revision of adult cestodes in, Rec. V, 693.

ringworm in, Rec. III, 371; VI, 845.

Russian dairy, Rec. X, 295.

salt for, Rec. VI, 663.

sanitary control in Belgium, Rec. IX, 192.

septicemia in, Rec. IX, 195.

shelter for, Rec. V, 195.

Cattle—Continued.

Shorthorn—

- breed, Rec. VII, 337.
- management, Rec. XII, 288.
- notes, Rec. XI, 983.
- pedigree, Rec. II, 4.

show of Smithfield Club, Rec. IX, 869.

silage for, Bul. 2, I, 67; Rec. II, 176; IV, 607.

Simmenthaler, notes, Rec. XI, 983.

skin diseases, Bul. 2, II, 119.

slaughter experiments, Rec. VII, 804; VIII, 427.

slaughtered, determination of age, Rec. XII, 194.

southern, transportation, Rec. III, 729.

sporadic pneumonia, Rec. IX, 888.

sporozoon in, Rec. V, 513.

stalls, Rec. VIII, 521.

statistics, Rec. II, 518; V, 799.

sterility, causes, Rec. XI, 289.

sugar for, Rec. IX, 874.

sweetening feed, Rec. II, 177.

Swiss, Brown, notes, Rec. XI, 983.

tapeworm cysts of, Rec. IX, 274.

temperature—

as affected by different influences, Rec. XII, 92.

variations, Rec. X, 692.

tick— (See also TEXAS FEVER.)

as affected by low temperatures, Rec. XI, 1087.

biology, Rec. IV, 731.

device for destroying, Rec. VI, 473.

dipping experiments, Rec. XI, 285, 391; XII, 290.

method of acquiring virulence, Rec. XI, 1087.

notes, Rec. III, 501, 811; IV, 732, 749; VI, 235, 472; X, 794; XI, 173, 588.

of California, notes, Rec. XI, 173.

prevalence in New South Wales, Rec. XI, 996.

remedies, Rec. VII, 882; VIII, 1001; IX, 894; XI, 491; XII, 992.

toxemic hemoglobinuria, Rec. XI, 894.

tuberculosis. (See TUBERCULOSIS.)

Wahima, of Central Africa, Rec. VI, 242.

wasting disease, Rec. VIII, 159.

water on the joints, Rec. XI, 289.

weight—

of organs, Rec. X, 584.

relative, of different parts, Rec. V, 1101.

wheat for, Rec. V, 1065; VII, 337.

white, origin and history, Rec. X, 885; XII, 379.

wild, handling, Rec. I, 155.

young, cost of raising, Rec. XI, 1077.

Cattlemen, convention, Rec. II, 33.

Cattlefly fly—

in Germany, Rec. VII, 880.

notes, Rec. X, 769; XII, 367.

Cattlefly, white varieties, Rec. X, 640.

Cauliflower—

affected by *Plutella maculata*, Rec. XI, 1063.

leaf miner, Rec. VIII, 418.

leaf scorch, Rec. XI, 1058.

Cauliflower—Continued.

seed—

American-grown, Rec. II, 239.

Eastern v. Western, Rec. III, 38.

germination test, Rec. V, 628.

imported v. American, Rec. III, 38.

Puget Sound, Rec. I, 294.

Cauliflowers—

analyses, Rec. IV, 59.

as affected by electric light, Rec. V, 294.

bacterial disease, Rec. IX, 319.

culture, Rec. IX, 357.

culture—

experiments, Rec. VIII, 313, 407; X, 148; XII, 1043.

in England, Rec. VII, 584.

early v. late planting, Rec. III, 38.

electro-culture, Rec. IV, 351; V, 294; VI, 809.

forcing, Rec. VIII, 268, 492; IX, 46; X, 354; XII, 952.

growing and marketing, Rec. XII, 850.

insects affecting, Rec. VIII, 147.

irrigation, Rec. V, 691; VIII, 689.

notes, Rec. V, 870; VI, 294; X, 547, 962; XI, 1047.

transplanting, effect on time of maturity, Rec. XII, 50.

varieties, Bul. 2, II, 135; Rec. I, 293; II, 29, 62, 69, 239, 318, 511, 515, 580, 598, 607; III, 85, 402, 532, 622, 625, 627; IV, 352, 436; V, 189, 298, 1074; VI, 51, 218, 423, 424, 725; VII, 35, 124, 129, 213, 302, 405, 867; VIII, 790, 888, 889, 977; XI, 51, 250; XII, 150, 851, 1043.

water requirements, Rec. XII, 340.

winter culture, Rec. V, 298.

Caulophylus latinasus, notes, Rec. IX, 854.

Caustic alkali, action on pepsin ferment, Rec. V, 729.

Caustic potash, preparation and use, Rec. V, 684.

Cave deposit, analyses, Rec. XII, 39.

Cayenne pepper, analyses, Rec. X, 281.

Ceanothus—

americanus, notes, Rec. III, 521.

ovatus, notes, Rec. III, 521.

pinetorum, notes, Rec. VI, 114.

Cecidomyia—

atriciplis, notes, Rec. VII, 517.

avena, notes, Rec. VII, 315, 880.

brachyptera, notes, Rec. X, 65.

brassicæ, notes, Rec. VIII, 909.

cerealis, notes, Rec. X, 568.

conifica, notes, Rec. IX, 965.

cornifex, notes, Rec. IX, 965.

culmicola, notes, Rec. X, 568.

destructor. (See HESSIAN FLY.)

frumentaria, notes, Rec. X, 568.

leguminicola, notes, Bul. 2, II, 118; Rec. III, 97, 197, 218; VI, 65, 313, 648; X, 165, 1066.

(See also CLOVER-SEED MIDGE.)

pini, studies, Rec. VI, 316.

rhois, notes, Rec. VI, 1002.

robiniae, notes, Rec. III, 47.

sp., notes, Rec. I, 134; IV, 839; XII, 367.

sp., on lindens, Rec. VII, 968.

taxi, notes, Rec. XI, 766.

Cecidomyia—Continued.

- tritici*, notes, Rec. VI, 316; VIII, 418; X, 569, 1076; XI, 658, 1065.
tumifica, notes, Rec. IX, 965.
vaccinii, notes, Rec. II, 418; III, 871; IV, 838; V, 800.

Cecidomyid—

- galls on larch, Rec. IX, 775.
 on poison oak, Rec. VI, 1002.

Cecidomyids—

- anatomy, Rec. VII, 699.
 of cereals, parasites, Rec. X, 568.

Cecropia—

- emperor caterpillar, notes, Rec. IV, 838.
 emperor moth, Rec. I, 21, 232; III, 396; VII, 880.
 larva, notes, Rec. V, 101.
 moth, notes, Rec. XI, 169, 955.
 silkworm, notes, Rec. II, 115, 664.

Cedar apples—

- and apple rust, relation, Rec. IV, 471.
 as a cause of disease of pears and apples, Rec. VIII, 801.
 Connecticut species, Rec. II, 711.
 notes, Rec. V, 62; VII, 695; XII, 573.
 tannin in, Rec. VII, 17.

(See also GYMNOSPORANGIUM.)

Cedar chips as an insecticide, Rec. IV, 475.*Cedar*—

- Japan, notes, Rec. IV, 655.
 Lebanon, notes, Rec. IV, 985.
 red—
 as host of *Gymnosporangium*, Rec. II, 711.
 extermination in Oklahoma, Rec. XII, 455.
 for parks, Rec. IX, 53.
 growth, Rec. IX, 53.
 moth on, Rec. VI, 316.
 notes, Rec. II, 143, 741; III, 521; IV, 655; V, 54; VI, 993; X, 965.
 red rot, Rec. XII, 766.
 white rot, Rec. XII, 766.
 trees as host of *Rastelia pirata*, Rec. V, 308.
 white—
 distribution in New Jersey, Rec. VII, 774.
 notes, Rec. IV, 655.

Cedrus atlantica, notes, Rec. VI, 144.*Celastrus scandens*, notes, Rec. III, 521; IV, 656.*Celery*—

- aphalaria, notes, Rec. V, 791.
 aphid, notes, Rec. V, 791.
 bacterial disease, Rec. III, 885; IX, 457, 850.
 beetles, notes, Rec. V, 791.
 black heart, notes, Rec. IX, 146.
 blanching, Rec. IX, 51, 245.
 blast, notes, Rec. IX, 146.
 blight—
 Bordeaux mixture for, Rec. VIII, 895.
 notes, Rec. III, 884; IX, 146, 251, 457, 656; XII, 61, 1056.
 treatment, Rec. VIII, 895; IX, 359.
 (See also CERCOSPORA APII.)
 book, Livingston's, Rec. X, 48.
 borer, notes, Bul. 2, I, 167; Rec. V, 791.
 caterpillar—
 hot water for, Rec. V, 686.
 notes, Rec. V, 791.
 center blight, notes, Rec. IV, 925; XII, 1056.

Celery—Continued.

- culture, Rec. III, 803; IX, 135, 357, 749, 950; X, 439; XI, 51.
 culture experiments, Rec. IV, 39; VII, 33, 401, 685; VIII, 313; IX, 244, 840; XII, 229.
 diseases—
 Bordeaux mixture for, Rec. IV, 926.
 copper carbonate for, Rec. VIII, 800.
 notes, Rec. IV, 51; V, 592; VI, 60.
 effect of shortening roots before planting Rec. XII, 1038.
 fertilizer—
 experiments, Rec. V, 171; IX, 350, 950.
 formula, Rec. XII, 851.
 fly—
 notes, Rec. VI, 560.
 remedies, Rec. IX, 160.
 fungus diseases, Rec. III, 884.
 grafted on parsnip, Rec. V, 1089.
 growing under glass in summer, Rec. XII, 1039.
 hotbed v. cold frames, Rec. X, 849.
 insects affecting, Rec. IV, 284; V, 901; VIII, 147.
 intensive cultivation, Rec. VIII, 407.
 irrigation for, Rec. VII, 404; VIII, 895.
 leaf blight—
 notes, Rec. III, 885; IV, 50, 659, 830; V, 788, 878; IX, 457.
 treatment, Rec. IV, 55, 659, 929; IX, 458, X, 265, 447, 971.
 leaf spot—
 notes, Rec. III, 884; IV, 925; IX, 457; X, 861; XII, 1056.
 treatment, Rec. X, 265.
 nematode on, Rec. V, 1011.
 notes, Rec. V, 877; X, 547, 962; XI, 498, 1047; XII, 50.
 oil, manufacture, Rec. VII, 770.
 plusia, notes, Rec. V, 791.
 reversion to wild state, Rec. VIII, 690.
 rust—
 notes, Rec. III, 885; IX, 457.
 treatment, Rec. VIII, 698.
 seed, germination test, Rec. V, 628.
 shading, Rec. XI, 752.
 spot disease, notes, Rec. VIII, 239.
 sprayed, copper content, Rec. IV, 926.
 stalk blight, notes, Rec. IV, 925.
 stem fly, notes, Rec. VI, 560.
 tree hopper, notes, Rec. IX, 151.
 varieties, Rec. II, 29, 69, 318, 392, 641, 669; III, 85, 356, 402, 609; IV, 352, 436; V, 189; VI, 5, 142, 218, 637, 727; VII, 213; VIII, 225, 888, 889, 977, 984; IX, 135, 244; X, 639, 849; XI, 51.
 wild, notes, Rec. III, 598.
 winter storing, Rec. VIII, 790; IX, 450.
 wireworms on, Rec. IV, 284.
 worm, notes, Bul. 2, II, 119.
 wrapping in Florida moss, Rec. XI, 153.

Cell—

- ciliary, absolute strength, Rec. V, 923.
 constituents, Rec. VII, 563.
 contents—
 as affected by lignification, Rec. V, 254.
 of drying leaves, transfer, Rec. III, 925.
 division—
 abnormal, Rec. X, 223.

Cell—Continued.

division—continued.

- as affected by gases, Rec. XI, 120.
- studies, Rec. V, 729.

formation, mechanism, Rec. VII, 188.

membranes—

- dissolution during germination, Rec. VI, 301; VII, 18.
- penetration, Rec. VII, 372.
- plasmolytic studies, Rec. XI, 1015.
- studies, Rec. VIII, 29; IX, 526, 922.
- thickening in epidermis of roots, Rec. V, 539.
- vegetable, carbohydrates, Rec. V, 817.
- vegetable, chemistry, Rec. III, 749.

motion, studies, Rec. VII, 94.

nuclei, investigations, Rec. V, 254.

nucleus—

- in development of fungi, Rec. VII, 466.
- sprouting seed, Rec. V, 254.

organs, changes in, Rec. VIII, 670.

osmotic activity, Rec. VIII, 670, 748.

physiology of, Rec. V, 818; XI, 424.

sap, red, occurrence in plants, Rec. XI, 121.

structure—

- and character, Rec. VII, 748.
- physiology, Rec. VIII, 957.
- studies, Rec. X, 417.

wall—

- histology, Rec. IX, 422.
- recent observations, Rec. V, 923.
- striation in the endodermis of roots, cause, Rec. IV, 870.
- tensile strength, Rec. IX, 921.

walls—

- experiments in staining, Rec. XI, 516.
- of fungi, Rec. X, 417.
- plants, Rec. X, 417.
- plants, lignification, firmness and elasticity, Rec. IV, 517.

Celloidin—

- and paraffin methods of embedding, combination, Rec. X, 321.
- embedding, Rec. X, 418.

Cells—

- absorption, Rec. XI, 794.
 - and tissues, staining, Rec. VII, 750.
 - animal and vegetable—
 - iron compounds in, Rec. VI, 968; VII, 468.
 - origin of coloring matter in, Rec. VII, 839.
 - as affected by centrifugal force, Rec. XII, 215.
 - bacterial, structure, Rec. VII, 659.
 - containing chlorophyll, respiration and assimilation, Rec. VII, 925.
 - disorganization phenomena, Rec. VII, 839.
 - living, chemical energy, Rec. XI, 814.
 - mucilage and resin, in *Taxus baccata*, Rec. V, 923.
 - of fungi, anatomy, Rec. V, 345.
 - plants, mineral requirements, Rec. VII, 277.
 - thread-like algæ, anatomy, Rec. V, 345.
 - vessels in plants, Rec. XI, 814.
 - physiological studies, Rec. IX, 526.
 - vegetable, centrosomes in, Rec. VI, 388.
- Cellular membranes, vegetable, chemical composition, Rec. V, 434.

Cellulitis, suppurative, of cows, Rec. XII, 292.

Cellulose—

- and extract matter, composition, Rec. VIII, 555; IX, 322.
 - nitrogen-free extract, fuel value, Rec. XII, 1072.
 - wood, spirits from, Rec. X, 116.
 - animal, studies, Rec. V, 252.
 - as affected by dilute acids, Rec. IV, 313.
 - cereal, constitution, Rec. VII, 921; VIII, 280.
 - chemistry, Rec. III, 748; V, 538, 647; VI, 869.
 - crystallization, Rec. V, 434.
 - derivatives, Rec. V, 261; VI, 190.
 - determination, Rec. III, 748, 910; V, 459, 560, 613; VII, 553; VIII, 196, 286, 741, 857; IX, 415, 1021; X, 606; XI, 704; XII, 511, 610.
 - determination—
 - comparison of methods, Rec. XII, 714.
 - in cereals, Rec. IX, 415.
 - feces, method for, Rec. XI, 661, 1006.
 - feeding stuffs, Rec. IV, 767, 781; VI, 866; X, 411, 716.
 - digestibility, Rec. III, 832; IV, 88; XII, 665.
 - enzym, Rec. XI, 124.
 - enzym in stomach of grain-feeding animals, Rec. III, 654.
 - enzymes, studies, Rec. IX, 120, 1029.
 - fermentation, Rec. VII, 659; IX, 922; XII, 722.
 - fungus, studies, Rec. V, 252; VI, 869.
 - furfural from, Rec. X, 407.
 - hydrolysis by acids, Rec. XI, 20.
 - in bacilli and fungi, Rec. VI, 110.
 - corn at different cuttings, Rec. V, 977.
 - dry beech leaves, Rec. V, 916.
 - peach stones, Rec. X, 716.
 - sugar cane, Rec. VI, 111, 273; VII, 648.
 - wheat and oat straw, Rec. V, 145.
 - investigations, Rec. V, 511.
 - like carbohydrates in feeding stuffs, Rec. IX, 220.
 - nitration, Rec. X, 412.
 - notes, Rec. XII, 309.
 - nutritive value, Rec. II, 613; III, 832; IV, 88; XI, 770.
 - reserve, action of diastase on, Rec. VI, 966.
 - solution by—
 - cytase, Rec. VII, 744.
 - enzymes, Rec. VII, 914.
 - solvent for, Rec. V, 1026.
 - studies, Rec. V, 817; VII, 271.
- Celtis occidentalis*—
- fungus disease, Bul. 2, II, 34.
 - notes, Rec. I, 741; III, 521, 788; IV, 654; VIII, 604.
 - (See also HACKBERRY.)
- Cement—
- analyses, Rec. VI, 794.
 - benches for subirrigation in greenhouses, Rec. VI, 299.
 - decomposition by bacteria, Rec. XI, 715.
 - for potato scab, Rec. III, 772.
 - investigations, Rec. XII, 896.
 - plaster industry of Laramie, Rec. XII, 1097.
 - rock, analyses, Rec. III, 590.
- Cemistoma*—
- coffeella*, affecting coffee, Rec. VIII, 996; XI, 1065.
 - scitella*, remedies, Rec. XI, 956.

Cenangium abietis—

- infesting conifers, Rec. VII, 513.
- injuring pines, Rec. VII, 508.

Cenchrus—

- myosuroides*, notes, Rec. II, 259.
- palmeri*, notes, Rec. IV, 498.
- tribuloides*—
 - notes, Rec. II, 259, 321, 491; III, 308; IV, 699; VI, 732; VII, 689; X, 343.
 - root system, Rec. IV, 47.

Cenoceltis spp., notes, Rec. IV, 852.*Cenophthra pilleriana*, notes, Rec. IX, 776.

Census bulletins, Rec. II, 537, 621, 768; III, 201, 202.

Centaurea—

- americana*, notes, Rec. X, 343.
- calcitrapa*, notes, Rec. VII, 38.
- cyanus*, notes, Rec. IV, 47; V, 913; VI, 822.
- melitensis*, notes, Rec. III, 598; VII, 38, 136.
- ragusina*, notes, Rec. XI, 453.
- solstitialis*, notes, Rec. III, 598; VII, 38; IX, 1055.

Centaur, germination as affected by light, Rec. XII, 1049.

Centipede, house, Rec. IX, 63.

Centipedes, venom, Rec. VI, 740; IX, 260.

Central Moor Commission, proceedings, Rec. XI, 134.

Centrifuge—

- for analytical work, Rec. III, 488; IV, 288.
- determination of crude fiber, Rec. IV, 767, 781.
- microscopical work, Rec. III, 488; IV, 288.
- for separation of—
 - butter from buttermilk, Rec. IV, 785.
 - micro-organisms, Rec. IV, 614.
- grain trials, Rec. VIII, 91.
- in laboratories, use, Rec. IV, 221; V, 817.
- speed indicator for, Rec. IV, 692.

Centrodra decolorata, notes, Rec. IX, 962; X, 168.*Centromadia pungens*, analysis, Rec. XII, 282.

Centrosomes—

- and central spindles, Rec. VII, 839.
- in plants, Rec. IX, 1027.
- of the animal cell, Rec. X, 321.

Centrospheres in fungi, Rec. VI, 280.

Ceolopisthus cephalotus, notes, Rec. XII, 865.*Cephalanthus occidentalis*, notes, Rec. III, 522.*Cephaleuros coffea*, parasitic on coffee, Rec. VII, 410.*Cephalomyia maculata*, notes, Rec. X, 568.*Cephalonomia* spp., notes, Rec. IV, 852.*Cephalosporium lecanii*, notes, Rec. XI, 275.*Cephalotaxus*—

- drupacea*, notes, Rec. VI, 144.
- fortunei*, notes, Rec. VI, 144.
- pedunculata*, notes, Rec. VI, 144.

Cephalothecium roseum, notes, Rec. V, 615.*Cephenomyia rufibarbis*, notes, Rec. VIII, 909; XII, 1062.*Cephonodes hylas*, notes, Rec. XII, 465.*Cephus*—

- grænicheri*, notes, Rec. X, 374.
- occidentalis*, n. sp., notes, Rec. III, 547.
- pygmaeus*—
 - affecting cereals, Rec. XI, 1057.
 - notes, Rec. I, 277; III, 546; IX, 855; XI, 862; XII, 1067.
 - remedies, Rec. III, 889; XI, 959.

Cerambycid beetle, notes, Rec. X, 1059.

Cerambycidae—

- North American, food habits, Rec. VIII, 69.
- of Ontario and Quebec, Rec. IX, 372, 1072.

Cerambyx scopalii, notes, Rec. VIII, 807.*Ceranica picta*—

- notes, Rec. I, 12, 21; III, 97; VIII, 321.
- on currants, Rec. IV, 416.

Cerastium—

- arvense oblongifolium*, notes, Rec. X, 1043.
- triviale*, notes, Rec. V, 913.

Ceratina dupla, notes, Rec. IV, 838; IX, 965.*Ceratomyxa*, swarm spores, Rec. VI, 487.*Ceratitis capitata*, notes, Rec. II, 179; X, 62; XI, 760.*Ceratocolus subterraneus*, notes, Rec. VIII, 910.*Ceratocystis fimbriata*, notes, Rec. II, 416; III, 297, 327, 689; VI, 987; VII, 684.*Ceratomia*—

- catalpa*, notes, Rec. XI, 956.
- siliqua*, analyses, Rec. IX, 1078.

Ceratophorum ulmicolum, notes, Rec. IV, 50.*Ceratoracuna lanigera*, notes, Rec. XII, 869.*Cerceris acanthophilus*, notes, Rec. IX, 372.*Cercis canadensis*, notes, Rec. III, 522.*Cercospora*—

- althaina*, notes, Rec. III, 307; IX, 657; X, 455.
- angulata*, notes, Rec. III, 217; V, 194; VII, 787.

apii—

- germination tests, Rec. IV, 52.
- notes, Rec. III, 884; IV, 50, 659, 926; V, 788; IX, 358, 457; X, 265, 971; XII, 1056.
- treatment, Rec. IV, 55, 659.

(See also CELERY BLIGHT.)

ariminensis, n. sp., description, Rec. XII, 767.*aricularis*, notes, Rec. IV, 50.*beticola*—

- notes, Rec. II, 581; III, 783; IV, 50, 822; V, 60; IX, 362, 656, 958; X, 156, 447; XI, 163, 752; XII, 657.
- treatment, Rec. XII, 430.

(See also BEET LEAF SPOT.)

betuloides, notes, Rec. V, 589.*bolleana*, notes, Rec. XII, 858.*cerasella*, perithecial form, Rec. XII, 768.*cercidicola*, notes, Rec. IX, 657.*circumscissa*, notes, Rec. III, 810; IV, 50, 955; XII, 463.*citrullina*, notes, Rec. VIII, 141; XI, 357.*clarata*, notes, Rec. IV, 50.*coffecicola* affecting coffee seedlings, Rec. VII, 39.*cucurbita*, notes, Rec. XI, 357.*erigoni*, notes, Rec. VIII, 671.*flagelliformis*, notes, Rec. III, 307.*flexuosa*, n. sp., Rec. VI, 1000.*gossypina*, notes, Rec. III, 7; IV, 831.*graminicola*, n. sp., Rec. VI, 1000.*helianthemii*, n. sp., description, Rec. XII, 767.*helvola*—

- medicaginis*, notes, Rec. II, 322.
- notes, Rec. III, 295.

hibisci, n. sp., Rec. VI, 1000.*hypophylla*, n. sp., description, Rec. XII, 767.*hyptidis*, notes, Rec. VIII, 671.*kopkei*, n. sp., notes, Rec. III, 278; VIII, 287; X, 57.*microsora*, notes, Rec. X, 260.*mississippiensis*, n. sp., Rec. VI, 1000.*nicotianae*, notes, Rec. IX, 566.

Cercospora—Continued.

parvifolius, notes, Rec. III, 522; V, 589.
resedæ, notes, Rec. III, 308; V, 401; VI, 558;
 XI, 465.

(See also MIGNONETTE LEAF BLIGHT.)

ribis—

notes, Rec. X, 725.
 prevention, Rec. IV, 400.

rosicola, notes, Rec. IV, 50.

sacchari, notes, Rec. VIII, 237; X, 57.

sequoiæ, notes, Rec. IX, 659.

ticinensis, n. sp., description, Rec. XII, 767.

vaginæ, notes, Rec. VIII, 237; X, 57, 362.

viola, notes, Rec. III, 307; IV, 54; X, 449, 456;
 XII, 961.

(See also VIOLET LEAF SPOT.)

viticola, notes, Rec. II, 32; III, 213, 403; XI, 59.

vitis, notes, Rec. XI, 260.

zizisæ, notes, Rec. IV, 50.

Cercospora—

as a cause of peach spot, Rec. VI, 557.

of celery blight, Rec. IV, 830.

Cercosporella—

nivea, notes, Rec. VII, 838.

persica, notes, Rec. II, 482; III, 810.

Cereal—

breakfast foods, Rec. XI, 599; XII, 979.

breakfast foods, analyses, Rec. X, 475, 875;
 XI, 314; XII, 69, 273.

food by-products, analyses, Rec. XII, 281, 282,
 378, 877.

foods—

analyses, Rec. IX, 472; X, 875.

fuel value, Rec. IX, 472.

in Russia, preparation, Rec. XII, 45.

grains, cutting and mounting, Rec. VIII, 989;
 IX, 330.

seeds, method of examining, Rec. VI, 279.

Cerealine feed—

analyses, Rec. V, 410; VII, 702; XII, 378.

description, Rec. XI, 971.

digestibility, Rec. XI, 566.

v. corn meal for pigs, Rec. XI, 568.

Cerealine for cows, Rec. X, 589.*Cereals*— (See also BARLEY, OATS, WHEAT, etc.)

African, fungus diseases, Rec. VIII, 412.

alucite of, in France, Rec. V, 1030.

analyses, Rec. IX, 834.

analyses—

Norwegian, Rec. XI, 79.

World's Fair specimens, Rec. VII, 396.

and catch crops in rotations, Rec. X, 955.

field flowers, Rec. IX, 526.

flowers, microscopical examination, Rec.
 IX, 526.

as food plants, advantages, Rec. XI, 970.

breeding, Rec. V, 648, 807; VI, 140; VII, 273,
 355; IX, 1048; X, 349, 749, 826, 955, 1039.

carbohydrate content at different periods,
 Rec. IX, 551, 723.

composition of gluten, Rec. VIII, 254; X, 79.

condition, Rec. III, 253; IV, 77.

continuous culture, Rec. VII, 499.

cooperative experiments in Germany, Rec.
 III, 268.

culture, Rec. IX, 643.

Cereals—Continued.

culture—

experiments, Rec. V, 577; VI, 808.

in Alaska, Rec. XII, 630.

Algeria, Rec. VII, 580.

with reference to phosphates, Rec. V, 436

determination of—

cellulose, Rec. IX, 415.

fermentable substances, Rec. IX, 219.

starch, Rec. IX, 25, 418; X, 314.

digestibility and nutritive value, Rec. V, 811;
 IX, 780.

effect of sulphate of iron in the soil on yield,
 Rec. III, 750, 919.

fertilizer—

experiments, Rec. V, 346, 347; IX, 1048;
 XI, 230, 241; XII, 1036.

requirements, Rec. VI, 541.

fungus diseases, Rec. VI, 560; VIII, 412; IX,
 760, 852; XI, 166, 1057.

(See also BLIGHT, RUST, SMUT, etc.)

geographical distribution in North America,
 Rec. X, 723; XI, 219.

germination—

effect of artificial drying on, Rec. X, 259.

effect of humus acids on, Rec. X, 645.

studies, Rec. XI, 355, 361.

tests, Rec. IV, 436.

growing with legumes, Rec. V, 264.

growth, Rec. III, 579, 734.

growth as affected by methods of seeding,
 Rec. XI, 442.

heats of combustion, Rec. X, 874.

imported from Russia; Rec. XI, 319; XII, 45.

insects affecting, Rec. III, 600; V, 516; VIII,
 808; IX, 760; X, 164; XI, 366, 765, 862, 1057,
 1062; XII, 862.

(See also specific insects.)

irrigation experiments, Rec. III, 890.

Japanese, smut, Rec. VII, 224, 964.

location of the heaviest kernels in the head,
 Rec. III, 925.

lodging, Rec. X, 929.

loss of weight in storage, Rec. VI, 419.

production and consumption of phosphoric
 acid, Rec. XI, 529.

pure culture of varieties, Rec. V, 818.

soluble fertilizers for, Rec. V, 347.

statistics, Rec. X, 298, 1039.

statistics—

Austria, 1893, Rec. VI, 87.

France, Rec. XII, 1098.

Great Britain, Rec. V, 660.

Japan, 1893, Rec. VI, 87.

Russia, Rec. XII, 1098.

Scotland, Rec. IX, 198.

United States, Rec. IX, 297.

subsoiling, Rec. XI, 1026.

varieties, Rec. IX, 241; XII, 849.

variety testing, Rec. III, 813.

water requirements, Rec. X, 635.

Cerebella paspali, spore germination, Rec. V, 937.

Cerebral inflammation of cattle, Rec. XII, 491.

Cerebritis—

enzootic, of horses, Rec. III, 388.

of domestic animals, Rec. V, 79.

horses and mules, Rec. V, 203.

Cerebro-spinal meningitis—

- in domestic animals, Rec. V, 603, 795.
- horses, Rec. V, 603; VI, 843; VIII, 524; X, 394, 896, 998; XI, 697.
- horses—

- in Illinois, Rec. XII, 290.

- treatment, Rec. X, 394.

- so-called, Rec. XII, 886.

‘Ceres powder’ for grain smuts, Rec. VII, 225, 789.

‘Ceres pulver’—

- for barley smut, Rec. X, 156, 453.

- grain rusts, Rec. VIII, 898.

- mangolds, Rec. X, 432.

- oat smut, Rec. X, 344, 453, 361, 762; XI, 944.

Ceresa—

- bubalus*. (See BUFFALO TREE HOPPER.)

- taurina*, notes, Rec. VI, 562.

Cereus—

- cumengei*, notes, Rec. VII, 564.

- digueti*, notes, Rec. VII, 564.

Cereus, revision of species, Rec. VIII, 107.

Cercococcus—

- ficoides*, notes, Rec. XI, 563.

- quercus*, notes, Rec. X, 62.

Ceroplastes—

- ceriferus*, notes, Rec. X, 769.

- cirripediformis*, notes, Rec. V, 409; XII, 68.

- floridensis*, notes, Rec. V, 409; XII, 68.

- roseatus*, development, Rec. XI, 563.

- rubra*, remedies, Rec. XII, 167.

Ceroplastes, parasites, Rec. X, 1058; XI, 1100.

Cerotoma—

- caminea*—

- notes, Rec. II, 342.

- on beans, Rec. IV, 667.

- trifurcata*—

- notes, Rec. X, 64, 66; XI, 952; XII, 362.

- treatment, Rec. XI, 471.

Ceruchus piceus, notes, Rec. X, 168.

Cervidæ in Idaho, Rec. III, 184.

Cesium in ash of cultivated plants, Rec. IX, 323.

Cestodes. (See TAPEWORM.)

Cetonia—

- floricola*, notes, Rec. XI, 1065.

- metallica*, notes, Rec. X, 65.

- stictica*—

- in hotbeds, remedies, Rec. XI, 477.

- notes, Rec. XI, 477.

Cetonia—

- Indian, notes, Rec. III, 783.

- study, Rec. XI, 657.

Ceuthophilus latibuli, n. sp., Rec. VI, 440.

Ceutorhynchus—

- rapæ*, notes, Rec. II, 81; IX, 67; XII, 363.

- spp., notes, Rec. XII, 363.

- sulcicollis*, notes, Rec. VI, 917, 1007; VII, 882; IX, 74.

Ceylon—

- agricultural organization, Rec. XI, 999.

- botanical institutions, Rec. XI, 999.

- coca leaves, Rec. VI, 44.

Chenomeles japonica serotina, notes, Rec. VI, 549.

Chaerophyllum bulbosum, notes, Rec. VI, 298.

Chaetochloa— (See also MILLET and SETARIA.)

- italica*, notes, Rec. X, 343.

(See also HUNGARIAN GRASS.)

Chaetochloa—Continued.

- latifolia*, notes, Rec. X, 516.

- macrostachya*, notes, Rec. X, 343.

- sp. in North America, Rec. XII, 219.

Chaetocnema—

- confinis*, notes, Rec. V, 403; X, 61; XI, 62.

- denticulata*, notes, Rec. X, 61, 1061.

- parcepunctata*, notes, Rec. X, 61.

- pulicaria*, notes, Rec. III, 54; X, 61, 66, 1061

Chaetomium—

- contortum*, notes, Rec. XII, 57.

- marchicum*, notes, Rec. VII, 838.

- setosum*, notes, Rec. VIII, 867.

Chaetomium, new conidial form, Rec. VIII, 670.

Chaetophoma oleaciana, notes, Rec. VII, 876.

Chaetopsis ænea—

- notes, Rec. VIII, 418.

- on cereals, Rec. VI, 1003.

Chaff—

- analyses, Rec. II, 581; X, 276; XI, 777.

- in foods and feeding stuffs, identification Rec. XI, 672.

- nitrogen content, Rec. X, 515.

- scale, notes, Rec. VI, 235.

Chagres River, ratio of discharge to rainfall Rec. XI, 819.

Chain-dotted geometer, notes, Rec. IV, 839.

Chaitophorus—

- maculatus*, notes, Rec. XI, 957.

- negundinis*, notes, Rec. I, 120; II, 673.

- sp., notes, Rec. X, 1066.

Chalara paradoxa, notes, Rec. VI, 487.

Chalcid flies—

- determination of species, Rec. XII, 870.

- new species, description, Rec. XII, 870.

Chalcid fly—

- in houses, Rec. IV, 284.

- parasitic on *Ichneumon*, Rec. IV, 284.

Chalcididæ—

- classification, Rec. XI, 265.

- pupation, Rec. III, 547.

Chalcis—

- marixæ*, notes, Rec. II, 115.

- obscurata*, notes, Rec. VIII, 506.

- oratus*, notes, Rec. II, 319.

Chalepus trachypygus, notes, Rec. IV, 848.

Chalk-plate maps, Rec. XI, 620.

Chamaebatia foliolosa, notes, Rec. III, 598.

Chamaecyparis lawsoniana—

- germination tests, Rec. V, 61.

- notes, Rec. IX, 651.

Chamberland candles. (See FILTER, CHAMBERLAND.)

Chamber's index, revision, Rec. IV, 284.

Chamomile—

- field, notes, Rec. III, 616.

- root system, Rec. IV, 46.

Champagne, “dry,” analyses, Rec. XI, 906.

Champion Bell fodder, analyses, Rec. XII, 70.

Chamyris cerintha, notes, Rec. IV, 204.

Chaparral millet, notes, Rec. X, 343.

Chapman honey plant—

- experiments, Rec. II, 279, 499; III, 82.

- notes, Rec. II, 580.

Charzas graminis—

- notes, Rec. VI, 655, 740; VII, 231; VIII, 507; XII, 467, 973.

- treatment, Rec. XI, 765.

Chara fragilis—

- nuclear division, Rec. VIII, 957.
- structure of the spermatozoa, Rec. IV, 692.

Charbon. (See ANTHRAX.)

Charcoal—

- forests, management, Rec. XI, 457.
- for indigestion in horses, Rec. X, 794.

Charitopus magnificus, notes, Rec. III, 46.

Charlock. (See MUSTARD, WILD.)

Charrinia diplodiella, notes, Rec. IX, 249, 960; XII, 360, 571.

Charts in soil, study, Rec. VI, 794.

Chatinella scissipara, notes, Rec. X, 156.*Chauliodes rastricornis*, notes, Rec. I, 292.*Chauliognathus pennsylvanicus*, notes, Rec. II, 644.
Chautauqua grape belt, geological history, Rec. VIII, 111.

Chayote, notes, Rec. XII, 245, 853.

Cheat. (See CHESS.)

Cheddar cheese. (See CHEESE, CHEDDAR.)

Cheese—

- adulteration, Rec. V, 361, 1060; X, 275, 791; XII, 485.

adulteration—

- detection, Rec. V, 450; VII, 158; IX, 420, 521; X, 18.
- prevention, Rec. V, 655.

albumin experiments, Rec. VIII, 729.

American, deterioration, Rec. III, 729

analyses—

- Borden, Rec. VI, 338
- Brie, Rec. IV, 945.
- Camembert, Rec. VI, 338; VIII, 330.
- Cheddar, Bul. 2, I, 33; Rec. II, 582; III, 611, 797; IV, 59, 75, 367, 486, 945, 947; V, 86, 207, 543, 956; VI, 338; VIII, 342, 344, 1027; IX, 886; X, 188, 295; XI, 978; XII, 20.

Cheshire, Rec. VI, 338.

double cream, Rec. VI, 338.

Dutch, Rec. VI, 338.

Edelweiss-Camembert, Rec. VIII, 330.

Emmenthaler, Rec. IV, 945; VIII, 330.

English varieties, Rec. V, 956; VI, 338.

filled, Rec. VII, 630.

foreign, not designated, Rec. IV, 616; VII, 708; IX, 323; X, 993.

from goats' milk, Rec. VI, 82.

reindeer's milk, Rec. VI, 82.

sheep's milk, Rec. V, 957.

full cream, Rec. IV, 945; IX, 886.

Gervais, Rec. VIII, 330.

Gloucester, Rec. VI, 338.

Gorgonzola, Rec. V, 957; VI, 338.

green, Rec. V, 895; VII, 160.

Gruyère, Rec. VI, 338.

imitation Old English, Rec. IV, 945.

Italian, Rec. IV, 519.

Italian overripe, Rec. V, 956.

Limburger, Rec. IV, 945.

Melun, Rec. XII, 1084.

Neufchâtel, Rec. IV, 945.

of different ages, Rec. V, 86.

overripe, Rec. III, 823; IV, 98.

Parmesan, Rec. VI, 338.

pineapple, Rec. IV, 945.

Roquefort, Rec. IV, 945; VI, 338.

Cheese—Continued.

analyses—continued.

Sicilian, Rec. V, 734, 1060.

skim milk, Rec. IV, 945, 988; VI, 85.

Stilton, Rec. VI, 338.

York cream, Rec. VI, 338.

analysis methods, Rec. IV, 99, 116; VII, 161, 555; VIII, 667; X, 18, 90; XII, 19.

as a carrier of diseases, Rec. VII, 339.

ash analyses, Rec. VI, 935; VII, 157, 629.

Association of Ontario, report, Rec. XI, 788.

Bacillus aromaticus of, Rec. V, 208.

bacteria, Rec. IV, 873; VI, 941; VIII, 265; X, 792; XI, 688.

bacteria—

affecting quality, Rec. III, 261.

distribution in, Rec. XI, 487.

growth in, Rec. XI, 389.

lactic acid, Rec. XII, 787.

poisonous, Rec. VIII, 933.

bacterial content, Rec. IX, 586; XII, 388.

bacterial flora, Rec. XII, 984.

bacteriology, Rec. VI, 674; VII, 337, 338, 992; XI, 285, 388, 889.

bad flavor, Rec. XII, 385.

bitter, Rec. VII, 338; XII, 388.

bitter, cause, Rec. V, 1101.

blue spots, Rec. VI, 482; VIII, 832.

Borden, analyses, Rec. VI, 338.

Bosnian Trappists', preparation and composition, Rec. III, 832; V, 1060.

branding, Rec. X, 189.

Brie—

analyses, Rec. IV, 945.

fungus flora, Rec. X, 388.

manufacture, Rec. VII, 256.

Camembert—

analyses, Rec. VI, 338; VIII, 330.

manufacture, Rec. V, 1060; VII, 256; XI, 588.

Canadiar, lead in, Rec. VIII, 720.

cellar, hygrometer for, Rec. IV, 223.

cellars, ventilation, Rec. VI, 674.

Cheddar—

- analyses, Bul. 2, I, 33; Rec. II, 582; III, 611, 797; IV, 59, 75, 367, 486, 945, 947; V, 86, 207, 543, 956; VI, 338; VIII, 342, 344, 1027; IX, 886; X, 188, 295; XI, 978; XII, 20.

v. stirred-curd process, Rec. III, 612.

chemistry and bacteriology, handbook, Rec. XI, 489.

Cheshire, Rec. VI, 85.

Cheshire, analyses, Rec. VI, 338.

cholera bacilli in, Rec. VI, 168.

coating—

excelsior, Rec. XI, 687.

paraffin, Rec. XII, 91.

colored spots, Rec. X, 593; XI, 984.

coloring, plants for, Rec. V, 1066.

composition as affected by storing in damp cellars, Rec. XI, 978.

curd—

bacteria in, Rec. V, 208.

bacteria tainting, Rec. X, 1093.

bad flavor, Rec. XII, 385.

careful v. rough handling, Rec. XII, 385.

Cheese—Continued.

curd—continued.

- gassy, *Rec. XII*, 388, 984.
- gassy and stringy, *Rec. XII*, 389.
- gassy and tainted, *Rec. XI*, 296.
- inflation, *Rec. VII*, 528, 991; *VIII*, 537.
- micro-organisms found in, *Rec. V*, 1047.
- source of gas, *Rec. X*, 1093.
- test, *Rec. X*, 698.
- test, Wisconsin, description, *Rec. XII*, 593.

curds, stirring, *Rec. X*, 292.

curing. (*See* CHEESE, RIPENING.)

curing rooms—

- construction, *Rec. XI*, 186, 397, 490, 688, 689.
- control of temperature, *Rec. XII*, 385.
- cooling, *Rec. XI*, 186, 397.

decomposition products of, *Rec. V*, 1062.

defects, cause, *Rec. XI*, 1085.

detection of margarin in, *Rec. VII*, 158; *IX*, 420, 521.

dipping at different stages of acid, *Rec. XI*, 686.

double cream, analyses, *Rec. VI*, 338.

Dutch, analyses, *Rec. VI*, 338.

Edam, *Rec. IV*, 988.

Edam—

- industry in Holland, *Rec. XI*, 984.
- manufacture, *Rec. V*, 211, 1060; *VI*, 939, 1026; *IX*, 689.
- ripening process, *Rec. XI*, 488.

Edelweiss-Camembert, analyses, *Rec. VIII*, 330.

effect of—

- composition of milk, *Rec. III*, 612, 798; *IV*, 367, 427, 492, 575, 948; *V*, 604, 605, 689, 996, 1060; *VI*, 1026; *VIII*, 343; *X*, 291.
- feed on quality, *Rec. VIII*, 343.
- salt, *Rec. V*, 1061; *VIII*, 342.

Emmenthaler—

- analyses, *Rec. IV*, 945; *VIII*, 330.
- description, *Rec. V*, 1060.
- formation of holes, *Rec. X*, 687.
- lactic acid ferments in, *Rec. XI*, 981.
- manufacture, *Rec. V*, 1060; *VIII*, 835; *XII*, 684.
- ripening, *Rec. III*, 929; *V*, 1062; *IX*, 585; *X*, 687; *XII*, 884, 986.

factories—

- care of milk for, *Rec. VI*, 169.
- construction and methods, *Rec. IX*, 590.
- establishment, *Rec. II*, 675.
- management, *Rec. VI*, 169; *VII*, 256.
- milk test, *Rec. II*, 441; *IV*, 390.
- notes, *Rec. V*, 506; *VII*, 162; *X*, 792.
- of Roquefort, *Rec. VIII*, 835.
- paying for milk on test, *Rec. V*, 440, 996; *VI*, 480; *XI*, 284.
- rations for cattle for, *Rec. V*, 540.
- factory washings, composition, *Rec. VII*, 71.
- fancy, *Rec. VII*, 339.
- fat, composition, *Rec. VII*, 526.
- fat content, *Rec. V*, 1060.
- fat, determination, *Rec. IV*, 116; *V*, 511, 1027; *VI*, 11, 15, 109, 673; *IX*, 521; *X*, 90, 188.
- faults, *Rec. XI*, 790.
- filled, *Rec. V*, 361, 1060; *XII*, 485.

Cheese—Continued.

- filled, analyses, *Rec. VII*, 630.
- flavor as affected by bacteria, *Rec. X*, 294.
- food value, *Rec. X*, 993.
- foreign, in Wisconsin, *Rec. XI*, 490.
- form of nitrogen, *Rec. IV*, 99.
- from goats' milk, *Rec. VII*, 526; *XII*, 1084.
- goats' milk, analyses, *Rec. VI*, 82.
- mares' milk, *Rec. IV*, 223.
- milk of different kinds of animals, composition of fat in, *Rec. VII*, 526.
- reindeer's milk, analyses, *Rec. VI*, 82.
- sheep's milk, *Rec. V*, 957; *IX*, 796; *X*, 792.
- skim milk, *Rec. IV*, 945, 988; *VI*, 85.
- full-cream, analyses, *Rec. IV*, 945; *IX*, 886.
- gas-producing organisms, *Rec. VIII*, 730; *XI*, 1086.
- Gervais, analyses, *Rec. VIII*, 330.
- Gloucester, analyses, *Rec. VI*, 338.
- Gorgonzola—
 - analyses, *Rec. V*, 957; *VI*, 338.
 - manufacture, *Rec. VII*, 339.
- Gouda, manufacture, *Rec. V*, 211, 213, 1060; *VI*, 939, 1026; *IX*, 689, 898.
- Grana, manufacture, *Rec. X*, 493.
- green—
 - analyses, *Rec. V*, 895; *VII*, 160.
 - coloration, *Rec. V*, 928.
 - coloration, prevention of, *Rec. VI*, 85.
 - composition, *Rec. V*, 895; *VII*, 160.
- Gruyère—
 - analyses, *Rec. VI*, 338.
 - avoidance of "lainage," *Rec. XI*, 1085.
 - manufacture, *Rec. VIII*, 441.
- holes or pores, formation of, *Rec. V*, 249; *X*, 687, 793.
- homemade, fancy, *Rec. IX*, 796.
- imitation Old English, analyses, *Rec. IV*, 945.
- industry in—
 - New York, *Rec. IX*, 89, 590.
 - Wisconsin, *Rec. IX*, 387; *X*, 790.
- Italian, analyses, *Rec. IV*, 519; *V*, 956.
- Italian Strachini, description, *Rec. V*, 1060.
- Laguirole, manufacture, *Rec. VII*, 339.
- legal standard for, *Rec. VI*, 340.
- Limburger—
 - analyses, *Rec. IV*, 945.
 - manufacture, *Rec. VII*, 339.
- Lombardy, cause of green color, *Rec. V*, 1061; *VI*, 673.
- loss in weight on keeping, *Rec. VII*, 161.
- making, *Rec. VI*, 1026; *VII*, 808; *IX*, 689; *XI*, 1085; *XII*, 90.
- making—
 - acid test of milk in, *Rec. XII*, 884.
 - and butter making, relative value of cows for, *Rec. V*, 319.
 - and distribution, *Rec. IV*, 846.
 - bacteriology, *Rec. VI*, 85, 250, 941; *VII*, 429; *IX*, 388, 689; *X*, 91.
 - care of milk for, *Rec. XII*, 384.
 - changes in processes, *Rec. III*, 611.
 - Cheddar and stirred-curd processes, *Rec. IV*, 949.
 - chemistry, *Rec. VII*, 339, 898.
 - cleaning milk, *Rec. VIII*, 346.

Cheese—Continued.

making—continued.

curd test, *Rec. X*, 698.
 cutting curd, *Rec. IV*, 949.
 directions, *Rec. IV*, 274, 495, 577, 732, 979;
V, 211, 603, 605.
 distribution of milk constituents in, *Rec.*
IV, 750.
 effect of aerating milk, *Rec. IV*, 949; *VIII*,
 728; *X*, 292; *XI*, 683.
 effect of composition of milk, *Rec. III*,
 610, 612, 798; *IV*, 367, 427, 492, 575, 948; *V*,
 85, 604, 605, 689, 897, 996, 1060; *VI*, 1026;
VII, 339; *VIII*, 728; *IX*, 181; *X*, 291, 295.
 effect of dipping at different stages of acid,
Rec. X, 293; *XI*, 686.
 effect of gases in milk, *Rec. IV*, 949.
 effect of period of lactation, *Rec. IV*, 272;
V, 1060.
 effect of rennet, *Rec. VIII*, 631.
 effect of tainted milk, *Rec. IV*, 427, 576.
 effect of variation of methods, *Rec. IV*,
 427, 576.
 effect of varying quantities of rennet,
Rec. IV, 949; *X*, 293; *XI*, 685.
 experiments, *Rec. III*, 610, 797; *IV*, 365,
 426, 575, 945; *V*, 209, 353, 361, 724, 725, 892,
 941, 1059; *VI*, 85, 480, 481, 1020, 1025, 1026;
VII, 158, 338, 715, 717; *VIII*, 635, 728, 1027,
 1029, 1030; *IX*, 451; *X*, 291; *XI*, 683.
 from heated milk, *Rec. X*, 1092; *XII*, 591,
 1084.
 machine-drawn milk, *Rec. X*, 295.
 milk of different breeds, *Rec. IV*, 273,
V, 1060, 1064; *VI*, 68; *VII*, 47; *VIII*,
 635.
 pasteurized milk, *Rec. X*, 293, 493;
XII, 288.
 heating curd to high temperature, *Rec.*
IV, 949.
 hot-iron test, *Rec. VIII*, 729.
 in American factories, *Rec. IX*, 290.
 Canada, *Rec. VI*, 480, 484; *XI*, 490.
 Cheshire, *Rec. V*, 725.
 France, *Rec. VIII*, 835.
 Georgia, *Rec. III*, 833.
 Holland, *Rec. IV*, 390; *V*, 824, 928, 1033.
 Italy, *Rec. VII*, 256.
 New York, *Rec. V*, 689, 892.
 Sweden, *Rec. V*, 928, 1033, 1061.
 Switzerland, *Rec. V*, 824, 928, 1033.
 the South, *Rec. V*, 1060.
 lactic ferment, *Rec. IX*, 587.
 losses in, *Rec. III*, 611, 798; *IV*, 366, 427, 493,
 575, 946, 947; *V*, 85, 210, 603, 605, 689, 896,
 941; *VI*, 480; *VII*, 160; *XI*, 790.
 machine, *Rec. VII*, 630.
 methods, *Rec. XI*, 490.
 milk fat for, *Rec. V*, 85, 440, 996, 1060; *VI*,
 1026.
 milk for, *Rec. II*, 69; *V*, 209.
 milling the curd, *Rec. X*, 293.
 on the farm, *Rec. XI*, 390.
 oxidation process in, *Rec. V*, 1047.
 principles, *Rec. VII*, 256, 339.
 problems, *Rec. XI*, 889.
 profits, *Rec. VII*, 423; *IX*, 92.

Cheese—Continued.

making—continued.

pure cultures for, *Rec. IX*, 92, 388, 689; *X*,
 688, 996; *XI*, 283, 296.
 pure *v.* homemade cultures, *Rec. XI*, 87.
 rennet, artificial, in, *Rec. X*, 791.
 ripening milk, *Rec. VIII*, 730.
 ripening milk before adding rennet, *Rec.*
X, 293.
 salting the curds, *Rec. X*, 294.
 skim milk for, *Rec. V*, 261.
 starters for, *Rec. XII*, 388.
 suggestions, *Rec. XII*, 593.
 temperature of curds at time of putting
 to press, *Rec. X*, 294; *XI*, 686.
 testing materials for, by eudiometric
 method, *Rec. V*, 824, 928.
 text-book, *Rec. XII*, 593.
 with sour milk, *Rec. XI*, 585.
 manufacture and consumption, *Rec. VIII*,
 832.
 margarin. (*See* CHEESE, FILLED.)
 Melun, *Rec. XII*, 1084.
 micro-organisms, *Rec. V*, 1047.
 mite, remedies, *Rec. V*, 990; *VI*, 939; *IX*, 65.
 mites, notes, *Rec. VII*, 231.
 mold, *Rec. V*, 1062.
 mottled, *Rec. XI*, 687.
 Neufchâtel, analyses, *Rec. IV*, 945.
 Norway, exportation from, *Rec. V*, 936.
 nutritive value, *Rec. VII*, 992.
 of different ages, analyses, *Rec. V*, 86.
 overripe, analyses, *Rec. III*, 823; *IV*, 98.
 Parmesan, analyses, *Rec. VI*, 338.
 poisonous—
 bacillus in, *Rec. VII*, 933.
 investigations, *Rec. VIII*, 835; *X*, 892.
 Port-l'Évêque, manufacture, *Rec. VIII*, 442.
 pores in, prevention, *Rec. V*, 824.
 production, Ayrshire cows for, *Rec. V*, 319.
 ptomaines in, *Rec. IV*, 784; *V*, 1047.
 regulations governing sale in Belgium, *Rec.*
XI, 790.
 ripening, *Rec. V*, 656, 734, 1061; *VII*, 339; *IX*,
 588; *X*, 388, 787; *XII*, 485, 593, 1083.
 ripening—
 abnormal, *Rec. III*, 751; *IV*, 785, 988.
 as affected by—
 fungi, *Rec. XI*, 787.
 galactase, *Rec. XII*, 88, 484, 682, 801.
 hydrogen peroxid, *Rec. V*, 208, 1062.
 lactic-acid bacteria, *Rec. X*, 592, 789;
 XI, 787, 981.
 Penicillium, *Rec. XI*, 787.
 peroxid of iron, *Rec. V*, 1062.
 salicylic acid, *Rec. V*, 208, 1062.
 temperature, *Rec. VIII*, 835; *X*, 787;
 XI, 490, 686, 1085; *XII*, 385.
 unorganized ferment, *Rec. X*, 787.
 bacteriology, *Rec. V*, 1061; *IX*, 286, 290;
X, 592, 996; *XI*, 688.
 biology, *Rec. X*, 792.
 causes, *Rec. X*, 689; *XI*, 702; *XII*, 484, 801.
 changes, *Rec. III*, 613; *IV*, 493; *VI*, 342.
 changes in casein, *Rec. V*, 86.
 changes in fat, *Rec. X*, 1094, 1095.
 chemical studies, *Rec. XI*, 980.

Cheese—Continued.

ripening—continued.

- chemistry and bacteriology, Rec. VII, 808.
- cooperative experiments, Rec. XI, 689.
- decomposition of milk fat, Rec. X, 789.
- formation of fat in, Rec. IV, 988; V, 247, 1062.
- function of lactic-acid bacteria, Rec. XI, 787.
- in absence of air, Rec. IV, 988.
- investigation, Rec. V, 85, 130, 249; VI, 1026; IX, 205, 289, 887; XII, 682.
- losses in, Rec. IV, 427, 577; V, 86; VIII, 346.
- rapid v. slow, Rec. X, 292.
- studies, Rec. IX, 205, 289, 887.
- use of hygrometer, Rec. V, 214.

Roquefort—

- analyses, Rec. IV, 945; VI, 338.
- effect of green particles, Rec. XI, 788.
- manufacture, Rec. XI, 390; XII, 91.
- Penicillium glaucum* in, Rec. XI, 788.

sampling, Rec. IV, 116; V, 83.

saponification and oxidation process, Rec. V, 1047.

Sicilian, manufacture and composition, Rec. V, 734, 1060.

skim milk—

- analyses, Rec. IV, 945, 988; VI, 85.
- centrifugal, fat content, Rec. VI, 484.
- from centrifugal skim milk, Rec. VII, 71.
- manufacture, Rec. IV, 948; VI, 85, 484.

skipper—

- in hams, Rec. V, 901.
- notes, Rec. V, 517; VI, 653; VII, 791.
- remedies, Rec. IX, 65.

soft—

- analyses, Rec. VI, 404.
- classification, Rec. VIII, 834, 835.
- curd, manufacture, Rec. VI, 941; VIII, 442, 835.
- French, description, Rec. V, 1060.
- manufacture, Rec. VIII, 835.

solids of milk, effect of digesting bacteria on, Rec. XII, 89.

spoilt, examination, Rec. V, 922.

spores in, prevention of, Rec. V, 824.

Stilton—

- analyses, Rec. VI, 338.
- manufacture, Rec. VII, 339; XI, 285, 490; XII, 186.

Stracchino Gorgonzola, false "Erborinata," Rec. XII, 485.

Sweden, export committee of, report, Rec. XII, 289.

Swedish, Rec. IX, 689.

Swedish, exhibition, Rec. V, 928, 1033, 1061; XI, 790.

sweet-curd, manufacture, Rec. VII, 429.

swelling—

- cause, Rec. V, 1061; IX, 584.
- caused by yeast, Rec. V, 1097.
- prevention, Rec. V, 824, 921, 1061.

Swiss. (See CHEESE, EMMENTHALER.)

testing, Rec. X, 118.

texture, as affected by acid, Rec. VIII, 729.

Thyboe, manufacture, Rec. X, 189.

Tilsiter—

- experiments, Rec. XI, 788.
- manufacture, Rec. X, 892, 1097.

Cheese—Continued.

- trade with Great Britain, Rec. XI, 999.
- tubercle bacilli in, Rec. X, 996; XII, 985.
- United States v. Canadian, Rec. X, 190.
- value of milk, Rec. X, 385.
- vegetable, Rec. VI, 672; XII, 280.
- water and digestible nutrients in, Rec. V, 499.
- yeasts, Rec. X, 189.
- yeasts, new, fermenting milk sugar and causing cheese to swell, Rec. V, 1097; VI, 343.
- yield as affected by—
 - composition of milk, Rec. III, 610; IV, 367, 427, 492, 576; VI, 480; VII, 161, 339; VIII, 342, 343, 726, 728; IX, 181, 888; X, 295.
 - lime salts, Rec. IX, 584; XII, 91.
- yield from factory and station milk, Rec. IV, 427.
- yields, actual and calculated, Rec. V, 604.
- York cream, analyses, Rec. VI, 338.

Cheeses—

- cream, manufacture, Rec. IV, 948.
- soft, effect of temperature on water content, Rec. IV, 785.

Cheimatobia brumata—

- means of distribution, Rec. XII, 663.
- notes, Rec. VI, 316; VII, 307; VIII, 909; XI, 66; XII, 468.

Chelanops affinis, n. sp., Rec. VI, 440.*Chelymorphia argus*, notes, Rec. IV, 839; X, 61; XI, 62.*Chelyoxenus xerobatis*, n. sp., Rec. VI, 440.

Chemical—

- agent, effect on germination, Rec. VIII, 467.
- analysis, methods— (See FERTILIZERS, FEED-ING STUFFS, etc.)
- principles, Rec. IX, 419.
- quantitative, Rec. VII, 364; XI, 812.
- tariff of rates, Rec. V, 562.

apparatus—

- new, Rec. VI, 776.
- standardizing, Rec. X, 717.
- classification and symbols in antiquity, Rec. V, 818.
- dehorner, analysis, Rec. V, 205.
- elements, classification, Rec. VII, 90; VIII, 667.

energy of living cells, Rec. XI, 814.

experiments, text-book, Rec. VIII, 287.

instruction in the United States, Rec. VI, 110.

processes involved in muscular action, Rec. VIII, 156.

Society, American, Rec. V, 453; VII, 270; XI, 1100.

work in Canadian agriculture, Rec. VIII, 105.

Chemicals—

- agricultural, use, Rec. II, 374.
- for destroying wild mustard, Rec. XII, 253, 349.
- poisonous effect on algae and infusoria, Rec. VIII, 670.

Chemico-technical analysis, Rec. IX, 419.

Chemistry—

- agricultural, Rec. V, 569; VI, 691, 869; VII, 271; IX, 97; X, 820; XI, 617.
- agricultural—
 - applications, Rec. V, 569; XI, 1099.
 - methods of teaching, Rec. XI, 1099.

Chemistry—Continued.

- agricultural—continued.
 - progress in, Rec. V, 224, 538; XI, 418; XII, 418.
 - text-book, Rec. IV, 232; X, 715.
 - treatise, Rec. III, 924.
- analytical, Rec. VI, 691; VII, 271.
- and bacteriology of cheese ripening, Rec. VII, 808.
- botany of the peanut, Rec. V, 728.
- economy of food, Rec. III, 213; VII, 148.
- pathology, manual, Rec. VIII, 743.
- physical properties of Bordeaux mixture, Rec. VIII, 315.
- and physiology—
 - applied to agriculture, Rec. X, 820.
 - of leaves, Rec. IV, 984; V, 127, 344.
 - malt and beer, Rec. VIII, 466.
- and technology of cheese making, Rec. VII, 598.
- application to horticulture, Rec. IX, 451.
- Applied, International Congresses, Rec. V, 660; VIII, 95; X, 18, 919.
- applied, progress, Rec. X, 716.
- as related to bacteriology, Rec. V, 1098.
- bibliography, Rec. VII, 270.
- commercial organic, Rec. XII, 715.
- dairy, handbook, Rec. VIII, 634; XI, 618.
- elementary, manual, Rec. VI, 190.
- evolution and achievements, Rec. XI, 617.
- food, compendium, Rec. XII, 676.
- for beginners, Rec. VIII, 287.
- technical and practical students, Rec. VIII, 551; IX, 297.
- handbook of volumetric analysis, Rec. XII, 515.
- history, Rec. VII, 835.
- in agriculture, Rec. IV, 950.
- daily life, Rec. VII, 556; VIII, 203.
- industrial—
 - dictionary, Rec. X, 1004; XI, 618.
 - organic, handbook, Rec. XII, 715.
 - text-book, Rec. XI, 212; XII, 20.
- mathematical, Rec. IX, 116.
- medical, recent progress, Rec. XI, 618.
- of albuminoids, Rec. VI, 966.
- albumose, Rec. VII, 737.
- animal fats, Rec. IX, 25, 419.
- assimilation of carbonic acid by green plants, Rec. V, 434, 614.
- bacteria, Rec. V, 345, 435.
- barley, Rec. VII, 757.
- Bordeaux mixtures, Rec. IV, 563.
- bread making, Rec. VIII, 1014.
- cacti, Rec. IX, 329.
- carbohydrates, Rec. IX, 418.
- casein, Rec. III, 929.
- cheese making, Rec. VII, 339.
- chlorophylls, Rec. VI, 14, 110, 691, 968; VII, 17, 372, 838; X, 219, 313; XI, 710.
- conglutin, Rec. VIII, 373.
- copper salt fungicides, Rec. VI, 56; VII, 592.
- cotton plant, Rec. VI, 807.
- Cuscuta, Rec. VII, 407.
- diastase, Rec. VIII, 368.
- digestion, Rec. VIII, 924.
- enzymes and bacteria, Rec. X, 1017.
- essential oils, Rec. XI, 618.

Chemistry—Continued.

- of fermentation, Rec. IV, 222; IX, 627.
 - flower-coloring material, Rec. V, 1026.
 - food preserving, Rec. VII, 890.
 - galactose, Rec. X, 116.
 - glycogen of fungi, Rec. VII, 651.
 - honey, Rec. V, 647; VIII, 375.
 - lichenic and fungus membranes, Rec. VII, 926.
 - living cell, Rec. VIII, 470.
 - living protoplasm, Rec. V, 922.
 - milk and its products, Rec. V, 440.
 - nitrate formation, Rec. VIII, 682.
 - nitrogen, Rec. VII, 271, 364.
 - nutrition, manual, Rec. XI, 482.
 - nutritive, Rec. VII, 523.
 - oils, handbook, Rec. XII, 715.
 - perfumes, Rec. IX, 25.
 - plant cell membranes, Rec. VI, 14.
 - plant fibers, Rec. V, 558, 647.
 - protein precipitation, Rec. IX, 808; X, 116.
 - red coloring matter of plants, Rec. VIII, 566.
 - rusted and frosted wheat, Rec. I, 99, 100.
 - sassafras, Rec. X, 1005.
 - starch, Rec. IX, 418.
 - strawberry plant, Rec. VIII, 408.
 - sugar, recent investigations, Rec. XII, 107.
 - tannin, Rec. VII, 557.
 - theories and applications, Rec. VIII, 105.
 - Thomas slag, Rec. IV, 222.
 - tobacco, Rec. IV, 223, 373; V, 47, 256; VI, 111; VII, 76; VIII, 402.
 - tobacco smoke, Rec. VI, 111.
 - tubercle bacilli, Rec. X, 794.
 - vegetable alkaloids, Rec. IX, 323.
 - vegetable oils and butter, Rec. VII, 364.
 - vitellin, Rec. VIII, 373.
 - wheat, Rec. X, 943.
 - organic—
 - manual, Rec. VII, 364.
 - text-book, Rec. VI, 110.
 - periodic law in, Rec. VII, 270.
 - physiological—
 - and pathological, Rec. XI, 212.
 - laboratory, manual, Rec. XI, 509.
 - text-book, Rec. XI, 79.
 - plant and agricultural, Rec. XI, 617.
 - report of section, Rec. III, 141.
 - report on, Rec. IV, 398, 402.
 - review, Rec. IX, 418.
 - schools in Great Britain, Rec. VII, 271.
 - text-books, Rec. VII, 271, 462, 835.
- Chemists—
- Association of Official Agricultural, Rec. I, 237; II, 89, 608; III, 632; IV, 115, 580; V, 510; VI, 178, 614, 759; VII, 263, 921; VIII, 26, 272; IX, 226, 404; X, 504, 606; XI, 204, 310, 1007; XII, 503.
 - Association of Swiss Analytical, Rec. V, 433, 543; VII, 746.
 - of Christiana, Norway, report, Rec. IX, 1024.
 - Philadelphia Board of Health, report, Rec. IX, 688.
 - Sugar, of Austria-Hungary, convention, Rec. VI, 111.
 - Chemists' compendium, Rec. VII, 556.

Chenopodium—*album*. (See PIGWEED.)*ambrosioides*, root system, Rec. IV, 47.*bonus henricus*, notes, Rec. III, 598.*glaucum*, notes, Rec. V, 913.*polyspermum*, notes, Rec. V, 913.*vulvaria*, notes, Rec. III, 598.*Chenopodium* seeds in flour, Rec. V, 823.

Cherimoya, notes, Rec. VI, 636.

Cherimoyer, culture in California, Rec. VII, 585.

Chermes—*abietis*, notes, Rec. IX, 371, 965; X, 1059; XI, 562, 657; XII, 264, 468.*abietis-laricis*, notes, Rec. VI, 567.*fumitectus*, notes, Rec. XI, 657.*laricis*, notes, Rec. XI, 765.*pinicorticis*, notes, Rec. X, 1065.

spp., notes, Rec. IV, 204; XII, 159.

taxi, notes, Rec. XI, 766.*Chermes* infesting larches, biology, Rec. VII, 594.

Chernozem—

explanation of vegetable origin, Rec. XI, 623.
soils, analyses, Rec. X, 229.

Cherries—

acids in, Rec. III, 556.

analyses, Rec. III, 555, 556; IV, 59; VIII, 691;
X, 754, 961; XI, 1046.

analyses of juices, Rec. V, 648; VI, 110.

and plums, botany, Rec. X, 640.

ash constituents, Rec. III, 556.

as affected by unusual cold, Rec. XI, 1041.

Barbados, notes, Rec. VI, 221, 636.

black—

composition of juice, Rec. V, 648.

notes, Rec. IV, 655; X, 516.

bud development, Rec. XI, 851.

California, analyses, Rec. VIII, 691.

classification, Rec. IV, 165; VII, 398; IX, 450.

crossing experiments, Rec. XII, 746.

culture, Rec. VI, 992; X, 551.

culture in—

California, Rec. VI, 728.

New York, Rec. VII, 399; IX, 450.

pots, Rec. XII, 853.

drying, Rec. XII, 558.

dwarf, Rec. III, 522; VIII, 313; IX, 50.

fertilizer requirements, Rec. XI, 45.

fertilizing ingredients removed from the soil
by, Rec. VIII, 691.

flower buds—

as affected by cold, Rec. X, 755; XI, 930.

hardiness, Rec. XII, 23.

flower development, Rec. XII, 22.

flowering, Rec. IX, 842.

foliage, injuries by arsenites, Rec. II, 215, 216.

forcing, Rec. VI, 729; XII, 853.

fungicides for, Rec. III, 23.

grafting, Rec. X, 355.

growing in high latitudes, Rec. XII, 548.

gummosis, Rec. IX, 762.

Indian, notes, Rec. III, 521.

insecticides for, Rec. III, 23.

Japanese winter, Rec. VII, 504.

juice, fermentation, Rec. III, 555.

notes, Rec. IX, 559; X, 254, 547, 757, 1044; XII,
945.

parasitic diseases, Rec. XI, 949.

preparation for market, Rec. VII, 400.

Cherries—Continued.

red—

composition of juice, Rec. V, 648.

notes, Rec. V, 793.

wild, as stock for cherries, Rec. II, 218.

retarding blossoming period, Rec. XII, 548.

ripening, Rec. III, 555.

Russian—

notes, Rec. V, 793; VII, 305; VIII, 889.

varieties, Bul. 2, II, 87.

sand. (See SAND CHERRY.)

self-sterile varieties, Rec. XII, 237.

shot-hole effect, Rec. XI, 757.

sour, varieties, Rec. XII, 245.

spraying, Rec. VIII, 240.

stocks, Rec. II, 217, 218; XI, 931.

stocks, hardy, for, Rec. XI, 931.

sugar in, Rec. III, 555.

sweet, injury in the Rhine Provinces, Rec.
XII, 360.

Utah hybrid, notes, Rec. VI, 421.

varieties, Bul. 2, I, 66, 183, 190; Rec. I, 84,
229; II, 5, 25, 295, 355, 372, 426, 556, 599, 653,
668; III, 85, 246, 356, 360, 361, 403, 701, 723;
IV, 166, 556, 653, 690, 727; V, 190, 299, 496,
586, 587, 681, 793, 870, 877, 985; VI, 52, 55, 421,
423, 424, 728, 820, 901; VII, 34, 214, 400; VIII,
133, 134, 791, 889; IX, 51, 244, 352, 353, 450,
646, 841; X, 49, 254, 436; XI, 50, 152, 153, 251,
252, 544, 547, 844, 850, 929, 1036, 1048; XII, 237,
239, 245, 648, 853, 1044.

weeping bird, Rec. III, 788.

western dwarf, notes, Rec. VI, 421.

white, notes, Rec. V, 793.

wild, black, notes, Rec. I, 315; II, 663, 741;
III, 522.wild, poisonous properties of leaves, Rec. X,
923.winter forms of *Monilia*, Rec. IX, 1061.

Cherry—

almond grafted on, Rec. V, 1089.

aphis—

notes, Rec. II, 281; V, 593; VI, 316; VII,
230; IX, 1065; X, 766; XI, 170, 562, 863.

remedies, Rec. IX, 469.

beetle, red, Rec. X, 169.

black knot—

notes, Rec. III, 42, 308, 313; VI, 1000; VII,
311; IX, 762; X, 453; XI, 246; XII, 657,
767.

treatment, Rec. III, 403; VIII, 318.

blight, notes, Rec. V, 194.

borer, description and treatment, Rec. III, 88.

brandy, examination, Rec. VII, 530.

brown leaf spot, notes, Rec. IV, 837.

brown rot, notes, Rec. IV, 658, 837; V, 498; VI,
909; VII, 141; VIII, 140, 898; IX, 762. X,
265.

bug, notes, Rec. IX, 262.

curculio, remedies, Bul. 2, I, 101.

diseases—

new, Rec. XI, 469.

in the Hudson Valley, Rec. XII, 154.

fruit fly, Rec. XI, 866.

fruit rot. (See CHERRY BROWN ROT.)

ground. (See GROUND CHERRY.)

gum, organized ferment, Rec. IV, 314.

Cherry—Continued.

hexenbesens—

notes, Rec. VII, 225; IX, 56; XII, 463.

prevention, Rec. IX, 960.

hybrid, notes, Rec. VI, 421.

industry in Delaware, Rec. IX, 834.

laurel, mannite and sorbit in, Rec. III, 749.

leaf beetle, notes, Rec. X, 766; XI, 366.

leaf blight—

as affected by sunlight, Rec. X, 1049.

notes, Rec. VI, 558.

treatment, Rec. IV, 955; VI, 302, 1001.

leaf scorch, Rec. XI, 1058.

leaf spot—

fungicides for, Rec. III, 10; VII, 787.

notes, Rec. V, 498; VIII, 140; XI, 170; XII, 963.

treatment, Rec. VI, 787; IX, 148, 149; X, 265.

Morello, as a bush tree, Rec. VII, 504.

moth, notes, Rec. VIII, 148, 418.

peach grafted on, Rec. V, 1089.

powdery mildew—

notes, Rec. V, 194, 498; VI, 1000; IX, 762; XI, 246, 314.

treatment, Rec. IV, 169.

prune grafted on, Rec. V, 1089.

sawfly—

notes, Rec. VIII, 802, 909.

remedies, Rec. XI, 766.

scab, notes, Rec. V, 989; VI, 1000; IX, 762.

scale, notes, Rec. IX, 662.

shot-hole blight, treatment, Rec. III, 878.

shot-hole fungus, Rec. IX, 762.

slug. (See PEAR SLUG.)

spot disease—

notes, Rec. III, 217; V, 194; VI, 1000.

treatment, Rec. III, 217; IV, 169; V, 59.

stone oil as an adulterant of olive oil, Rec. IV, 986.

tree metabolism, Rec. IX, 524.

tree-plant louse, notes, Bul. 2, II, 58; Rec. II, 253.

tree scallop-shell moth, notes, Rec. II, 420.

tree slug, notes, Rec. I, 291.

tree tortrix, notes, Rec. II, 420; V, 328.

trees—

analyses, Rec. IV, 252.

Monilia, Rec. IX, 361, 1061.

notes, Rec. II, 512.

wild, rate of growth, Rec. IV, 45.

wild—

black knot, notes, Rec. VII, 875.

leaf spot, Rec. X, 649.

poisonous properties of the leaves, Rec. X, 923; XI, 599.

webworm, Rec. VIII, 611.

wood, ash analyses, Rec. X, 232.

Cherson, parasitic fungi, Rec. IX, 149.

Chervil—

bulbous, notes, Rec. VI, 298.

in the sixteenth century, Rec. X, 963.

varieties, Rec. VII, 405.

Cheshire cheese. (See CHEESE, CHESHIRE.)

Chess—

analyses, Rec. VI, 274; VIII, 81; XII, 471.

and clover, relative digestibility, Rec. IX, 867.

germination, Rec. VIII, 892.

Chess—Continued.

notes, Rec. II, 321; III, 598; IV, 47, 334; V, 625; VI, 436; VII, 384.

root system, Rec. IV, 46.

wild—

as a forage plant, Rec. III, 51.

notes, Rec. III, 51.

Chestnut— (See also CASTANEA.)

anthracnose, notes, Rec. IV, 50.

ash analyses, Rec. I, 26.

blight, notes, Rec. IX, 657.

borer, two-lined, Rec. IX, 674.

buckeye, notes, Rec. IV, 654.

climatic and fungus diseases, Rec. XI, 362.

disease—

in France, Rec. IX, 1061.

notes, Rec. VI, 233, 910; IX, 852; X, 59, 1057; XII, 464.

grafts and scions, winter injury, Rec. XII, 558.

leaf spot, Rec. X, 649.

oak bark, ash analyses, Rec. X, 219.

Pseudocommis vitis in diseases of, Rec. X, 59.

timber worm, notes, Rec. VI, 651; IX, 962.

trees—

as a source for tanning extracts, Rec. XII, 651.

body blight, Rec. X, 962; XI, 362.

disease, Rec. IV, 615.

notes, Rec. I, 4.

Pseudocommis vitis attacking, Rec. IX, 960.

weevil—

notes, Rec. VI, 561, 836; IX, 463; X, 962.

remedies, Rec. XI, 563.

Chestnuts—

American-grown, Rec. III, 178.

analyses, Rec. III, 177; V, 53.

as affected by *Agaricus melleus*, Rec. X, 59.

California, analyses, Rec. VIII, 787; X, 255.

culture, Rec. III, 177; V, 53; VI, 300, 902; VIII, 230, 497; IX, 452, 842, 950; X, 962; XI, 453, 549; XII, 649.

culture in the West, Rec. VI, 821.

Cylindrosporium on, Rec. V, 731.

European-grown, Rec. III, 178.

grafting, Rec. VII, 405; XI, 742.

Japanese, variation in same variety, Rec. XI, 937.

notes, Rec. IV, 614; IX, 353; XII, 237, 298.

orchard in Pennsylvania, Rec. XII, 953.

Spanish, insects affecting, Rec. XI, 765.

sun-scald, notes, Rec. XI, 362.

treatment for *Marsonia ochroleuca*, Rec. XI, 752.

varieties, Rec. I, 229; II, 295, 356, 642; III, 177; IV, 556; VI, 55, 300, 820; VII, 215; VIII, 230; X, 49.

wormy, Rec. IX, 962.

Chicago—

climate of, Rec. V, 219.

feed, analyses, Rec. III, 301.

maize feed, analyses, Rec. V, 312; VI, 1023.

Chickadee—

economic relations, Rec. XII, 423.

winter food, Rec. X, 726.

Chicken— (See also FOWLS, HENS, and POULTRY.)

by-products, utilization, Rec. XI, 79.

Chicken—Continued.

- cholera bacillus—
 - for destroying rabbits, Rec. XI, 1087.
 - reaction in nutrient medium, Rec. XI, 794.
 - cholera—
 - Canadian, Rec. XI, 1092.
 - differential diagnosis, Rec. XI, 985.
 - in Australia, Rec. IX, 294.
 - immunization, Rec. XI, 495.
 - symptoms, Rec. XI, 1092.
 - transmission by insects, Rec. XI, 995.
 - treatment, Rec. XI, 93.
 - corn—
 - analyses, Bul. 2, I, 108; Rec. I, 233.
 - culture experiments, Rec. II, 270.
 - seed, analyses, Rec. VIII, 520.
 - dermanysus, Rec. VI, 440.
 - disease similar to beri beri, Rec. X, 497.
 - enteritis and swine fever, Rec. VII, 805.
 - epizootic—
 - bacillus, studies, Rec. XI, 495.
 - in Italy, Rec. XI, 495.
 - feed, analyses, Rec. V, 194.
 - gapes, Rec. X, 698.
 - lice, emulsion, Rec. VIII, 612.
 - mite, notes, Rec. IX, 67; XII, 894.
 - parasites, Rec. VIII, 334, 626.
 - roup, notes, XII, 894, 990.
 - serum therapy, Rec. XI, 594.
 - treatment with antidiphtheria serum, Rec. XII, 395.
 - tuberculosis, treatment, Rec. XI, 594.
- Chickens—
- and ducks, relative gains, Rec. X, 581.
 - breeds, Rec. IX, 176, 378.
 - breeds and crosses, Rec. XI, 1074.
 - development, Rec. X, 280.
 - digestion experiments, Rec. XII, 872.
 - diphtheritic conjunctivitis, Rec. V, 7.
 - early v. late hatched, Rec. XI, 480; XII, 674.
 - feeding, Rec. III, 360.
 - feeding experiments, Rec. IV, 262; IX, 784, 1076; X, 77, 282, 675, 677, 883; XI, 78, 572, 774, 880, 881, 1073; XII, 377, 585.
 - ground grain—
 - for, Rec. X, 698.
 - v. cracked grain for, Rec. X, 580.
 - v. unground grain for, Rec. IX, 1076.
 - hemorrhagic septicaemia, Rec. XII, 294, 888.
 - immunity to tetanus, Rec. X, 497.
 - incubation, Rec. IV, 441.
 - incubator—
 - losses, Rec. XII, 1092.
 - mortality, Rec. XII, 192.
 - notes, Rec. XII, 878.
 - tests, Rec. X, 1088.
 - management, Rec. IV, 441.
 - monthly growth, Rec. II, 6.
 - nitrogenous v. carbonaceous diet, Rec. II, 506.
 - raising for use as "broilers," Rec. XII, 1078.
 - skim milk for, Rec. III, 707; IV, 262; X, 677, 698; XI, 277.
 - toxicology of strychnin, Rec. XII, 392.
- Chick-pea— (See also Cicer ARIETINUM.)
- boron in, Rec. III, 925.
 - copper in, Rec. III, 925.

Chick-pea—Continued.

- culture experiments, Rec. III, 925; IV, 875; VI, 982.
 - experiments in India, Rec. V, 333.
 - germination tests, Bul. 2, I, 30.
 - lithium in, Rec. III, 925.
 - notes, Rec. V, 627, 820, 908; VII, 954; X, 928.
- Chickweed—
- analyses, Rec. IV, 971, 972.
 - mouse ear, Rec. IX, 956.
 - notes, Rec. III, 308; VIII, 703.
 - root system, Rec. IV, 46.
- Chicory— (See also CICHORIUM INTYBUS.)
- adulteration, Rec. X, 583.
 - analysis, Rec. XI, 214.
 - blanched, disease, Rec. IV, 694.
 - culture, Rec. VI, 298; IX, 41, 357, 949; XII, 941.
 - culture—
 - and preparation, Rec. VIII, 490, 686, 780.
 - use, Rec. X, 236.
 - experiments, Rec. VIII, 313; XII, 430.
 - in Belgium, Rec. VI, 548.
 - eradication, Rec. XI, 749.
 - fertilizer experiments, Rec. VI, 410; VII, 209.
 - food constituents, Rec. VII, 803.
 - forcing, notes, Rec. X, 354.
 - fungus and insect enemies, Rec. IX, 760.
 - manufacture, Rec. X, 583.
 - notes, Rec. V, 398; XII, 328.
 - Phoma albicans* on, Rec. VII, 964.
 - roasted, Rec. VI, 931.
 - root system, Rec. IV, 45.
 - seed, germination, Rec. X, 236.
 - variations in composition, Rec. X, 423.
 - varieties, Rec. VI, 548; VII, 209, 405; X, 236.
 - wild—
 - culture, Rec. VIII, 686.
 - culture experiments, Rec. VI, 405.
 - winter—
 - culture, Rec. VII, 584, 585.
 - preservation, Rec. XI, 744.
- Chigoe. (See JIGGER FLEA.)
- Children—
- food of, Rec. VIII, 156, 254.
 - goat's milk for, Rec. VIII, 427, 537, 719.
 - metabolism experiments, Rec. XII, 981.
 - metabolism of, Rec. IX, 175.
 - preparation of milk for, Rec. VII, 339.
 - prepared foods for, Rec. IX, 480.
 - sterilized milk for, Rec. VII, 71.
- Chile saltpeter. (See NITRATE OF SODA.)
- Chile sauce, analyses, Rec. X, 281; XI, 769.
- Chilean—
- cochineal, notes, Rec. VIII, 1001.
 - nut, Rec. VIII, 231.
- "Chilinit," composition, Rec. XI, 1025.
- Chilo—
- infuscatellus*, notes, Rec. III, 278; VIII, 320; X, 570.
 - plejadellus*, notes, Rec. IV, 848.
 - saccharalis*, notes, Rec. II, 644; III, 327; VI, 235, 567.
 - simplex*, notes, Rec. XII, 770, 1067.
- Chilocorus—
- bivulnerus*—
 - notes, Rec. V, 409; VI, 741; IX, 663.
 - on white pine chermes, Rec. X, 1065.
 - parasitic, on San José scale, Rec. X, 1064.

Chilocorus—Continued.

circumdatus, introduction into South Africa,
Rec. XI, 760.

similis, importation, Rec. XI, 761.

tristis, importation, Rec. XI, 761.

Chiloneurus diaspidinarum, notes, Rec. VI, 740.

Chilopod myriapods, poison gland, Rec. VI, 236.

Chilopsis scale, notes, Rec. IV, 418.

China—

asters—

classification of varieties, Rec. VII, 215.

culture, Rec. VII, 215; IX, 451.

diseases, treatment, Rec. XI, 752.

rust, notes, Rec. IX, 657; X, 447.

rust, treatment, Rec. VII, 216.

(See also ASTERS.)

berries, analyses, Rec. III, 318.

grass. (See RAMIE.)

trade, Rec. XII, 98.

Chinch bug—

Australian, notes, Rec. XII, 1067.

bibliography, Rec. X, 372.

damage by, Rec. V, 63.

distribution, Rec. VI, 739; XII, 663.

enemies, Rec. X, 372.

false—

notes, Bul. 2, I, 31; Rec. II, 81, 664, 720;
III, 784; VI, 150; X, 169; XII, 974.

remedies, Rec. I, 12.

fungus diseases, Bul. 2, I, 71; Rec. II, 268;
III, 327, 657, 780, 833, 835; VI, 150; VII, 226;
VIII, 268, 557, 998.

hibernation, Rec. VI, 739.

in Illinois, Rec. VI, 234.

Iowa, notes, Rec. VI, 739.

Ohio, Rec. XI, 952.

infection, Rec. VI, 150, 312; VII, 314; VIII,
144, 268, 503, 557, 998; IX, 66, 149, 1072.

injuries from, Bul. 2, II, 21, 91.

means of distribution, Rec. XII, 663.

millet as a trap crop, Rec. VI, 714.

notes, Bul. 2, I, 71, 176; Bul. 2, II, 21, 94,
118, 119; Rec. II, 80, 81, 318; III, 54, 175, 176,
780, 876; IV, 354; V, 63, 101, 514; VI, 151, 235,
314, 651, 654, 1003, 1005; VII, 413, 697, 877, 878,
880, 968; VIII, 103, 321, 418, 500, 503, 905; X,
62, 268, 459, 973, 1066, 1069; XI, 370, 472; XII,
367, 468, 1067.

parasites, Rec. X, 1070.

remedies, Bul. 2, I, 176; Bul. 2, II, 119; Rec.
II, 720; VII, 226; VIII, 147, 500; X, 372,
1065, 1071.

Chinese—

cabbage, notes, Rec. VI, 217; X, 547.

conifers, Rec. X, 53.

junipers, notes, Rec. V, 54.

mustard, notes, Rec. VI, 217.

potato, notes, Rec. VI, 142.

primulas, breeding, Rec. XI, 453.

quince, notes, Rec. VI, 900.

tea, analyses, Rec. IV, 694.

vegetable food material, Rec. XI, 777.

vegetables, Rec. VI, 217.

yam, notes, Rec. VI, 636.

Chinit, study, Rec. III, 831.

Chinook—

and signs of approach, Rec. IX, 424.

Chinook—Continued.

at Havre, Mont., Rec. X, 1018.

in Iowa, Rec. IX, 815.

Montana, Rec. VIII, 111.

of 1896, Rec. VIII, 676.

v. the Kuro Siro, Rec. X, 124.

winds, Rec. III, 817.

"Chinosol"—

antiseptic power, Rec. XI, 496.

use in veterinary practice, Rec. IX, 594.

Chinquapins, varieties, Rec. IV, 556; VII, 215.

Chion cinctus, notes, Rec. XI, 366.

Chionanthus virginica, notes, Rec. IV, 654.

Chionaspis—

americana, notes, Rec. VII, 881; VIII, 146,
417; XI, 958.

aspidistae, notes, Rec. VII, 792.

aucuba, notes, Rec. IX, 966.

citri—

notes, Rec. III, 812; V, 409; VI, 742, 834;
X, 769.

remedies, Rec. XI, 372.

cockerelli, notes, Rec. IX, 966.

euanymi, notes, Rec. VI, 650.

furfurus. (See SCALE, SCURFY.)

latissima, notes, Rec. IX, 966, 1072.

maduinensis, notes, Rec. X, 661.

minor, notes, Rec. X, 972.

orthobis, notes, Rec. XI, 958.

pinifoliae. (See PINE SCALE.)

pinifoliae heterophyllae, notes, Rec. IX, 966.

salicis, notes, Rec. VIII, 146; IX, 663; XI, 958.

separata, n. sp., Rec. XII, 369.

spp., notes, Rec. XII, 369.

tagalensis, notes, Rec. X, 661.

thaez, notes, Rec. VII, 593.

wistariae, notes, Rec. IX, 966.

Chionaspis—

monograph, Rec. XI, 476, 563.

notes, Rec. XI, 476.

Chionea valga, notes, Rec. IX, 152.

Chipmunk louse, Rec. II, 609.

Chironomid, blood-sucking, notes, Rec. IV, 852.

Chironomus dorsalis, structure and life history,
Rec. XII, 870.

Chiropachys colon, notes, Rec. XI, 268.

Chitin in mushrooms, Rec. VII, 186.

Chives, fertilizer formula, Rec. XII, 851.

Chlamydomonadinae, memoir, Rec. X, 825.

Chlamys—

arizonensis, notes, Rec. X, 769.

plicata, notes, Bul. 2, II, 33; Rec. II, 116; IV,
839.

Chloral, effect on tetanus, Rec. XI, 192.

Chloral hydrate, effect on horses, Rec. XII, 887.

Chloraloses, studies, Rec. VIII, 284.

Chlorate of potash. (See POTASSIUM CHLORATE.)

Chlorates, determination in presence of chlorides
and perchlorates, Rec. XII, 510.

Chloridea virescens, notes, Rec. XII, 264.

Chloride—

action of aluminum on, Rec. V, 817.

alkaline, surface tension, Rec. XI, 112.

determination in presence of chlorates and
perchlorates, Rec. XII, 510.

effect on growth of plants, Rec. V, 254.

loss in incinerating, Rec. XI, 304.

Chlorin—

absorptive power of soils for, Rec. VI, 121, 122.
content of sea air, Rec. X, 1030.
determination, Rec. XI, 106.
determination, pipette for use in, Rec. V, 386.
for determination of proteids, Rec. IX, 521.
generation for laboratory purposes, Rec. VI, 273.

in bleaching powder, determination, Rec. XII, 308.

cotton-seed oil, Rec. XI, 619.

fats, determination, Rec. VII, 18.

organic compounds, detection, Rec. VII, 18.

plants, determination, Rec. X, 1004.

rain water, Rec. IV, 522; V, 804; VII, 486;

VIII, 964; IX, 335, 738; XII, 832.

saline waters, determination, Rec. X, 315.

soils for sugar cane, Rec. VI, 295.

urine, determination, Rec. VII, 559.

water, determination, Rec. V, 255.

water of Long Island, Rec. XII, 526.

wine, Rec. X, 194.

of soil, assimilation by plants, Rec. XI, 132.

separation, Rec. VIII, 954.

value as a fertilizer, Rec. XI, 914.

Chloris—

alba, notes, Rec. II, 259; VI, 732; X, 343.

barbata, notes, Rec. VIII, 306.

ciliata, notes, Rec. II, 259.

cucullata, notes, Rec. II, 259; X, 343.

glauca, notes, Rec. II, 259.

schwartziana—

culture experiments, Rec. III, 860.

notes, Rec. III, 548.

verticillata, notes, Rec. I, 320; II, 259.

Chloris, revision of genera, Rec. X, 518.

Chlorita flavescens, notes, Rec. VII, 593.

Chloroform—

as an anesthetic, Rec. IX, 695.

a solvent for fats of feeding stuffs, Rec. II, 488.

effect on—

artificial digestion with pepsin, Rec. V, 732; VI, 14.

pepsin digestion, Rec. IV, 782.

starch, Rec. VIII, 286; IX, 25.

for dissolving fat, Rec. V, 461.

introducing queen bees into hives, Rec. II, 496.

oat smut, Rec. II, 639.

wheat smut, Rec. II, 221.

in grading bone meal, Rec. III, 185.

Chloropal, analyses, Rec. X, 716.

Chlorophyll—

and allied substances in leaves, Rec. III, 654.

its derivatives, Rec. X, 121.

assimilation, Rec. XII, 313.

assimilation—

as affected by green coloration of leaves, Rec. XI, 513.

in littoral plants, Rec. X, 517.

of *Limodorum abortivum*, Rec. XI, 119.

(See also PHOTOSYNTHESIS.)

bearing plants, assimilation of carbonic acid by, Rec. V, 434, 614.

chemistry, Rec. VI, 14, 110, 691, 968; VII, 17, 372, 838; X, 219, 313; XI, 710.

Chlorophyll—Continued.

coloring matters accompanying, Rec. XII, 23.

criticism of certain investigations, Rec. XI, 814.

destruction by oxidizing enzymes, Rec. XII, 216.

digestibility, Rec. IV, 599.

extract, method of analysis, Rec. III, 925.

formation as affected by—

anesthetics, Rec. XI, 119.

phosphoric acid, Rec. IV, 314.

various substances, Rec. IX, 725.

formation—

at spring temperatures, Rec. IV, 587.

in plants, Rec. VII, 275.

forms, Rec. VI, 786.

function—

and the growth of leaves, Rec. VIII, 378.

studies, Rec. IX, 29, 526.

grains in seeds and sprouts, Rec. VI, 195.

in seeds and germinating plants, Rec. VII, 468.

wheat and oat straw, Rec. V, 145.

investigations, Rec. V, 1027.

new reagent for, Rec. VII, 840.

production in cultivated plants, Rec. VII, 465.

rôle in—

plant life, Rec. XII, 827.

sugar production, Rec. X, 726.

studies, Rec. X, 23, 223.

Chlorophyllan, nature, Rec. III, 925.

Chloroplastids, assimilation of isolated, Rec. X, 416.

Chloroplatinates—

determination, Rec. VII, 91, 272.

in nitrogen determination, Rec. VI, 775.

Chlorops—

assimilis, notes, Rec. X, 1061.

ingrata, n. sp., notes, Rec. V, 311, 312.

lineata, notes, Rec. XI, 658.

pumilionis, notes, Rec. X, 65; XII, 973.

sp., notes, Rec. VI, 316; VII, 883.

tæniopus, notes, Rec. V, 740; VIII, 69.

Chlorosis—

and its treatment with iron compounds, Rec. V, 1031; VI, 312; VII, 225, 411.

influence of—

humidity of calcareous soils on, Rec. VI, 233.

stock grafting on, Rec. VI, 424.

notes, Rec. VII, 513.

treatment, Rec. VI, 147, 312; VII, 39, 411, 965; VIII, 63; X, 764, 1058; XI, 469, 946.

Chocolate—

adulteration, Rec. IX, 521; XI, 970.

analyses, Rec. XI, 970.

determination of sugar in, Rec. VIII, 376; IX, 25.

moth, notes, Rec. IX, 853.

tip moth, notes, Rec. VII, 231.

Chojnowo, Poland, Experiment Station at, Rec. XI, 299.

Chokecherry—

amur, notes, Rec. III, 788.

culture, Rec. VIII, 600.

notes, Rec. III, 522; IV, 655; VIII, 604.

Cholera—

bacilli—

behavior in hens' eggs, Rec. V, 1098.

Cholera—Continued.

bacilli—continued.

behavior in milk, Rec. IV, 317; VII, 158, 897.

curdling of milk by, Rec. V, 1046.

effect of milk on, Rec. VI, 249.

in butter, Rec. III, 423.

in dairy products, Rec. VI, 18, 168.

in milk, means of destroying, Rec. V, 1045.

variability, Rec. IV, 693.

immunity through milk of inoculated goats, Rec. V, 439, 963.

in swine, notes, Rec. III, 152.

propagation by flies, Rec. IV, 596.

Cholesterin—

formation and combustion, Rec. XI, 576.

in egg yolk, Rec. XI, 882.

Cholesterins of the lower plants, Rec. X, 23.

Chondrilla juncea—

analyses, Rec. III, 629.

notes, Rec. VII, 135.

crispus, notes, Rec. IV, 715.

Chop—

analyses, Rec. XII, 282.

feed, analyses, Rec. XII, 281, 282.

meal, analyses, Rec. XII, 877.

Choriopsis communis ovis, notes, Rec. II, 79.*Chorizagrotis agrestis*, notes, Rec. XI, 267.

Chorogi—

analyses, Rec. III, 618.

notes, Rec. III, 618; V, 874.

Chramesus, biological notes, Rec. III, 812.

Chramesus icoriae, notes, Rec. XI, 952.

Christiania, Norway—

Chemical Control Station, Rec. V, 537; VII, 198; VIII, 152; IX, 26, 398, 712, 805; X, 838; XI, 706.

Milk Control Station, Rec. XII, 289.

Seed Control Station, report, Rec. VI, 550; IX, 1055.

Christmas rose, classification, Rec. XI, 852.

Chromates as preservatives for milk, Rec. XI, 984.

Chromatin reduction and tetrad formation in Pteridophytes, Rec. VIII, 867.

Chromic acid—

as a reagent for albumin in urine, Rec. IV, 314.

for determination of organic matter, Rec. VIII, 99.

Chromium in plants, Rec. XII, 113.

Chromosome reduction, studies, Rec. VI, 338; VII, 371; IX, 328.

Chronological cycles, XII, 1016.

Chronomus sp., notes, Rec. VIII, 911.*Chroococcus helveticus*, on greenhouse plants, Rec. XI, 906.

Chrysanthemum—

diseases—

and parasites, Rec. XI, 469.

notes, Rec. IV, 53; IX, 362.

treatment, Rec. XI, 469, 752.

fungous disease, Rec. IX, 457.

leaf blight—

notes, Rec. IV, 54.

treatment, Rec. I, 83.

Chrysanthemum—Continued.

leaf spot—

notes, Rec. VI, 311, 558.

treatment, Rec. VI, 59.

net wings, Rec. X, 168.

plants, distribution to residents of Rhode Island, Rec. V, 985.

rust—

notes, Rec. X, 455, 648, 971; XII, 254, 262, 1054.

treatment, Rec. IX, 325; X, 653; XI, 552, 946.

Chrysanthemum—

leucanthemum. (See OXEYE DAISY.)

segetum, ash analysis, Rec. VII, 506.

Chrysanthemums—

and dahlias, insects affecting, Rec. V, 352, 791.

bush-grown, Rec. X, 641.

certified varieties of 1898, Rec. X, 641.

choice for exhibition, Rec. IX, 1054.

color variations, Rec. IX, 561.

control of color, Rec. X, 438.

crossing, Rec. I, 36; VII, 405; IX, 650.

culture, Rec. VI, 549; VII, 216, 687, 688; VIII, 130; IX, 356, 451, 842; X, 153, 438.

English and French varieties, Rec. VIII, 409.

fertilizers, Rec. VI, 143; VIII, 409.

for winter blooming, Rec. XI, 52.

from seed, Rec. VII, 687.

grafting, Rec. VII, 688.

history, Rec. X, 49; XII, 1046.

injury by *Corythuca irrorata*, Rec. X, 570.

nematodes on, Rec. III, 308.

notes, Rec. VII, 506; XII, 613.

plant lice affecting, Rec. VII, 179.

recent importations, Rec. IX, 562.

regulation of blooming, Rec. IX, 140.

report of American Society, Rec. X, 640.

seedling, Rec. X, 855.

single, Rec. X, 153.

subirrigation, Rec. IX, 951.

synonyms, Rec. X, 963.

varieties, Rec. VII, 216; VIII, 131; IX, 356, 451, 951; X, 439, 641; XI, 644.

Chrysis—

shangaiensis, notes, Rec. VII, 883.

trimaculata parasitic on *Osmia bicolor*, Rec. IX, 468.

Chrysobothris—

femorata, notes, Bul. 2, II, 58; Rec. I, 45; II, 70; III, 175, 198, 313; V, 310, 635; VI, 990; VIII, 907, 999; IX, 371, 767; X, 164, 168, 369, 655; XI, 268; XII, 68.

(See also APPLE-TREE BORER, FLAT-HEADED.)

malii, notes, Rec. II, 81.

sexsignata, notes, Rec. X, 168.

sp., notes, Rec. XI, 1063; XII, 869.

Chrysomela of North America, Rec. VIII, 808.*Chrysomela*—

alni, notes, Rec. VIII, 711.

(*Phratora*) *vitellinae*, notes, Rec. IX, 160.

suturalis, notes, Rec. XI, 954.

vulgatissima, notes, Rec. IX, 862.

Chrysomelidae—

development of embryo, Rec. X, 372.

estivation, Rec. XI, 656.

experiments against, Rec. VIII, 712.

Chrysomelidæ—Continued.

- of Ontario and Quebec, Rec. VIII, 1002.
ovular envelopes, Rec. X, 372.

Chrysomphalus—

- ficus*, notes, Rec. XI, 958.
minor, notes, Rec. XI, 958.

Chrysomya albida as a cause of blackberry rust,
Rec. IX, 324.

Chrysopa—

- californica*, notes, Rec. VI, 741.
fraterna, notes, Rec. X, 166.
oculata, notes, Rec. V, 409; VII, 313; VIII, 142.
robertsoni, parasitic on white pine Chermes,
Rec. X, 1065.
sabulosa, notes, Rec. X, 166.
sp., notes, Rec. III, 175.

Chrysopa, natural history, Rec. X, 166.

Chrysophlyctis endobiotica, notes, Rec. VII, 875.

Chrysopogon—

- gryllus*, hay from, Rec. VI, 634.
nutans, notes, Rec. II, 329.
parviflorus, notes, Rec. VII, 680.
serrulatus, notes, Rec. IV, 248; VI, 93.

Chrysopophagus—

- compressicornis*, n. sp., notes, Rec. VI, 739.
n. gen., notes, Rec. VI, 739.

Chrysotile fiber in approximate organic analyses,
Rec. IV, 983.

Chufas—

- analyses, Rec. XI, 277.
culture, Rec. VIII, 687.
culture experiments, Rec. V, 176; IX, 243.
for pigs, Rec. X, 1086.
notes, Rec. VI, 215; IX, 142; X, 343; XII, 329.
varieties, Rec. II, 149.
yield per acre, Rec. I, 193.

Chuna—

- culture experiments, Rec. III, 82.
germination tests, Bul. 2, I, 30.

Church, relation to State colleges, Rec. X, 709.

Churn—

- Alpha, description, Rec. VIII, 1032.
elutriator for analysis of soils, Rec. V, 562.
so-called air, Rec. XI, 984.
tests—

- and milk tests compared, Bul. 2, II, 32;
Rec. III, 777, 798.
of milk, Rec. II, 203; III, 44.
to prevent overchurning, Rec. XI, 87.
washings for pigs, Rec. IV, 742.

Churnability as affected by food, Rec. III, 86;
IX, 884.

Churning—

- after adding water, Rec. V, 641.
and creaming—
experiments, Rec. IX, 92.
tests of cows, Rec. IV, 489.
colostrum, Rec. IV, 488; V, 962.
cream—
from cows at different stages of lactation,
Rec. IV, 446.
of different degrees of acidity, Rec. II, 203.
raised by different systems, Rec. V, 998.
soured with hydrochloric acid, Rec. VI,
248, 672.
Danish, Rec. V, 609.

Churning—Continued.

effect—

- of mixing sweet and sour cream, Rec. III,
478.
ripeness of cream, Bul. 2, II, 101; Rec.
V, 1057; VII, 625.
pasteurization, Rec. XI, 680.
temperature, Bul. 2, II, 101; Rec. III,
478; V, 641, 1056; VI, 937.
on fat globules, Rec. XII, 389.
efficiency as affected by size of fat globules,
Rec. X, 88.
exhaustiveness, Rec. VI, 250.
experiments, Bul. 2, I, 212; Rec. V, 322, 1000,
1056; VI, 936; VII, 338; X, 493; XI, 85, 186.
failure to "come," Rec. IX, 290.
loss of fat in, Rec. I, 323; III, 765; V, 323.
new method, Rec. I, 322; V, 656, 826.
process and formation of butter, Rec. V, 928;
IX, 290.
sweet & sour cream, Bul. 2, II, 101.
temperature and time of, Rec. IV, 271; V, 323,
1055.
treatment of cream during, Rec. VI, 941.

Churns—

- descriptions, Rec. IV, 189.
tests, Rec. I, 130; III, 891; VI, 483; IX, 1087;
XI, 285, 389, 689.

Cicada—

- chimneys, notes, Rec. VI, 740.
dog-day, notes, Rec. V, 498.
dwarf, remedies, Rec. V, 348.
notes, Rec. VIII, 68; IX, 767.
periodical—

- appearance in 1893, Rec. V, 327.
distribution of broods, Rec. X, 1063.
in Pennsylvania, Rec. III, 462.
West Virginia, Rec. XII, 1063.
natural enemies, Rec. X, 163.
nomenclature for broods, Rec. X, 1062.
notes, Rec. III, 298; V, 409, 498; VI, 440;
VII, 697; VIII, 68; IX, 260; X, 62, 162,
373, 469, 1059, 1071; XI, 477, 870; XII, 263.
parasites, Rec. X, 1073.
remedies, Rec. X, 1073.

Cicada—

- hieroglyphica*, notes, Rec. VI, 837.
h-lineata, notes, Rec. IX, 151.
septendecim, notes, Rec. III, 298, 462; IV, 839;
V, 409; VI, 316; VII, 697, 792; IX, 961; X, 62,
372, 1359; XI, 952.

Cicadas, remedies, Rec. XI, 478.

Cicadula—

- exilis*, notes, Rec. II, 50, 80; III, 218; VIII,
1002.
nigrifrons, notes, Rec. III, 548.
quadrilineata, notes, Rec. III, 548.
Cicer arctinum, notes, Rec. V, 820, 909; VII, 954;
X, 928.

(See also CHICK-PEA.)

Cichorium intybus—

- notes, Rec. III, 598; V, 398; IX, 41.
root system, Rec. IV, 46.

(See also CHICORY.)

Cicindela—

- 6-guttata*, notes, Rec. II, 116.
limbata, notes, Rec. II, 116.

- Cicinnobolus cesatii*, notes, **Bul. 2, II, 35.**
- Cicuta*—
bolanderi, notes, **Rec. IX, 527.**
bulbifera, notes, **Rec. IX, 527.**
maculata—
 notes, **Rec. V, 450; IX, 527; X, 516; XI, 287.**
 poisoning from, **Rec. VII, 588.**
 (See also WATER HEMLOCK.)
vagans—
 notes, **Rec. IX, 527; X, 516.**
 poisonous to cattle, **Rec. IX, 892.**
 (See also WATER HEMLOCK.)
- Cidaria dotata*, notes, **Rec. XII, 1060.**
- Cider*—
 analyses, **Rec. V, 194; VII, 719; VIII, 348, 377.**
 apples—
 selection, **Rec. VII, 504.**
 varieties, **Rec. VIII, 408.**
 washing, **Rec. XI, 294.**
 as affected by preservatives, **Rec. XI, 1100.**
 consumption in Paris, **Rec. XII, 196.**
 fermentation, **Rec. XII, 694.**
 making, **Rec. VI, 1027; VIII, 348; XII, 196, 245, 556, 693.**
 making—
 in Devonshire, **Rec. XII, 196.**
 Paris, **Rec. XII, 196.**
 oxidation of tannin in, **Rec. VI, 775.**
 pure yeasts in, **Rec. VI, 485.**
 preservation, **Rec. X, 381, 397; XII, 794.**
 prevention of blackening, **Rec. VII, 719.**
 sterilization by formalin, **Rec. IX, 594.**
 tests of freezing, **Rec. XII, 196.**
 treatise, **Rec. XII, 196.**
 vinegar—
 analyses, **Rec. VII, 463.**
 manufacture, **Rec. IX, 982.**
- Cienegas of southern California, **Rec. VI, 790.**
- Cigar case bearer, notes, **Rec. VIII, 906; IX, 856; X, 165.**
- Cigar—
 factory waste, analyses, **Rec. II, 280.**
 leaf curing barn, **Rec. X, 1097.**
- Cigarette beetle—
 notes, **Bul. 2, I, 177; IX, 65.**
 remedies, **Rec. X, 1068; XI, 472.**
- Cigars—
 efflorescence, **Rec. XI, 515.**
 nicotine content, **Rec. X, 413.**
- Cilia technique of coloration, **Rec. V, 345.**
- Cimbex americana*—
 notes, **Bul. 2, II, 92; Rec. I, 21, 120, 232; II, 116, 663, 664; V, 206.**
 parasites, **Rec. IV, 170.**
- Cimbex*, study, **Rec. XI, 657.**
- Cimex lectularius*, notes, **Rec. IX, 62, 1070.**
 (See also BEDBUG.)
- Cinchona, localization of alkaloids, **Rec. IX, 329.**
- Cinchonin as an insecticide, **Rec. II, 319.**
- Cineraria—
 cultivated, origin, **Rec. VII, 132.**
 fly, notes, **Rec. VII, 146, 316.**
 hybrids, **Rec. IX, 358; XII, 613.**
- Cinerarias—
 and calceolarias, notes, **Rec. VI, 549.**
 breeding, **Rec. XI, 453.**
 culture, **Rec. X, 264.**
- Cinna arundinacea*—
 notes, **Rec. VI, 403.**
pendula, notes, **Rec. II, 321.**
- Cinnamomum cassia*, formation of oil cells, **Rec. XII, 519.**
- Cinnamon, analyses, **Rec. X, 281; XII, 79.**
- Cinquefoil—
 notes, **Rec. III, 893; V, 398.**
 shrubby, notes, **Rec. IV, 656.**
- Cintractia*—
reiliana. (See *USTILAGO REILIANA*.)
seymouriana—
 n. sp., **Rec. VIII, 566.**
 on *Panicum crus-galli*, **Rec. VIII, 141.**
sorghii-vulgaris. (See *USTILAGO SORGHI*.)
- Cipher code, international, **Rec. V, 1086.**
- Circotettix verruculatus*, notes, **Rec. IX, 574.**
- Circumnutation, rate, **Rec. XI, 818.**
- Cirrhis—
 of the liver, **Rec. IX, 889; XI, 995.**
 of liver in cattle and sheep, notes, **Rec. XII, 685.**
- Cistern water—
 for oat smut, **Rec. II, 639.**
 wheat smut, **Rec. II, 221.**
- Cisthene unifascia*, notes, **Rec. X, 167.**
- Cistuses, culture, **Rec. IX, 951.**
- Citheronia regalis*, notes, **Rec. II, 482; VIII, 418; IX, 370.**
- Citotroga cerealella*, notes, **Rec. VIII, 507.**
- Citrate of lime, characteristics, **Rec. V, 127.**
- Citric acid—
 artificial production, **Rec. V, 1026.**
 detection of tartaric acid in, **Rec. IV, 613.**
 determination, **Rec. XII, 1007.**
 formation—
 during oxidation of sucrose, **Rec. VII, 557.**
 from cane sugars, **Rec. VII, 272, 362, 365.**
 function in metabolism, **Rec. V, 127.**
 in tobacco, **Rec. X, 1004.**
 preparation by synthesis, **Rec. V, 344.**
- Citric fermentation, **Rec. V, 435.**
- Citron—
 decay, **Rec. V, 401.**
 lice, remedies, **Rec. IV, 58.**
 melons, notes, **Rec. V, 577.**
- Citrons—
 culture, **Rec. III, 107.**
 varieties, **Rec. V, 396; VI, 820; VIII, 889; XII, 553.**
- Citrullis vulgaris*, notes, **Rec. V, 982.**
- Citrus—
 fruit crop of Italy, **Rec. V, 328.**
 fruit pomace, analyses, **XI, 381.**
 fruits— (See also LEMONS, ORANGES, etc.)
 analytical studies, **Rec. VII, 585; IX, 450.**
 as affected by *Mytilaspis*, **Rec. XI, 657.**
 black scurf, notes, **Rec. XII, 655.**
 blight, notes, **Rec. XII, 463.**
 budding experiments, **Rec. XII, 1045.**
 collar rot or mal-di-gomma, notes, **Rec. XII, 463.**

Citrus—Continued.

fruits—continued.

- culture, Rec. V, 396; VI, 637; VII, 404; VIII, 175; XII, 245.
- culture in California, Rec. XII, 246.
- culture in Italy, Rec. IX, 650.
- culture in Queensland, Rec. XII, 246, 753.
- culture in Sicily, Rec. VII, 404.
- dieback, notes, Rec. XII, 463.
- draft on the soil, Rec. V, 589.
- fertilizers for, Rec. VI, 729; VII, 582; IX, 450; XI, 744.
- foot rot, notes, Rec. XII, 463.
- fungus diseases, Rec. XII, 654, 657.
- growth as affected by alkali, Rec. XII, 923.
- injuries due to lichens and moss, Rec. XII, 463.
- insects affecting, Rec. V, 409, 732; VI, 438, 838; VII, 595; VIII, 321, 417, 808; X, 769; XI, 657; XII, 162.
- Italian Coccinellidæ, Rec. V, 732.
- leaf spot, notes, Rec. XII, 463.
- melanose, notes, Rec. XII, 463.
- notes, Rec. VI, 636; X, 547.
- of Florida, diseases, Rec. VIII, 58.
- Salt River Valley, Rec. VIII, 175.
- scab, notes, Rec. XII, 463, 655.
- scale insects, Rec. VIII, 321.
- sooty mold, notes, Rec. IX, 361; XII, 463.

trees—

- acidity of root sap, Rec. X, 223.
- gum disease, Rec. VIII, 705.
- verrucosis, Rec. XI, 861.

Citrus—

- japonica*, notes, Rec. V, 396.
- medica trifoliata*, notes, Rec. V, 396.
- pomelanus*, notes, Rec. VI, 728.
- trifoliata*, notes, Rec. II, 372.
- vulgaris*, structure and development of fruit, Rec. VIII, 748.

Citto tænia avicola, n. sp., notes, Rec. IX, 1031.

City fog, influence on cultivated plants; Rec. V, 818; VI, 16.

Civil service—

- examination, Rec. X, 124, 1018.
- in the U. S. Department of Agriculture, Rec. VIII, 547, 937.

Cladius—

- isomera*, notes, Rec. II, 81.
- pectinicornis*, notes, Rec. IV, 372.

Cladochytrium—

- alfalfæ*, notes, Rec. X, 1057.
- graminis* on oats, Rec. X, 155.
- pulposum*—
 - nutrition, Rec. IX, 29.
 - on sugar beets, Rec. VIII, 706.
- violæ*, n. sp., Rec. XI, 261.
- viticolum*, notes, Rec. VI, 436, 642.

Cladosporium—

- brunneo-atrum*, n. sp., notes, Rec. XII, 655.
- carpophilum*, notes, Rec. I, 36; III, 810; V, 629, 989; VI, 546, 1000; VII, 220; IX, 455.
- (See also PEACH BLACK SPOT.)
- cucumerinum*, notes, Rec. I, 36; V, 192, 309.
- (*Dematium*) *javanicum*, n. sp., Rec. VIII, 317.
- epiphyllum*, notes, Rec. XII, 156.

Cladosporium—

fulvum—

- notes, Rec. II, 32, 482; IV, 353; IX, 325, 655; XI, 752.
- treatment, Rec. III, 10, 847; IV, 55, 659; XII, 146.

(See also TOMATO BLIGHT.)

herbarum—

- notes, Rec. IV, 50; V, 423, 648; VI, 65, 147, 560; VII, 224, 875; XII, 218, 718.
- on timothy, Rec. IX, 957.
- perithecia, Rec. V, 1030.

javanicum, as a cause of root rot of sugar cane, Rec. X, 57.

lycopersici, notes, Rec. VIII, 148, 418.

macrocarpum, notes, Rec. II, 242.

subsessile, notes, Rec. VII, 838.

viticolum, notes, Rec. I, 319.

Cladosporium—

- morphology and biology, Rec. VII, 371.
- of the apple, Rec. VIII, 63.
- on cucumbers and gourds, Rec. VII, 964.

Cladostephus verticillatus, notes, Rec. IV, 715.

Cladothrix—

- dichotoma*, notes, Rec. VIII, 565.
- odorifera*, notes, Rec. VIII, 565.

Cladotrichum microsporum, notes, Rec. XII, 272.

Cladrastis tinctoria, notes, Rec. VIII, 314.

Claire—

- for oysters, construction, Rec. IV, 74.
- preparation and causes of greening of oysters, Rec. V, 733.

Clam shells, analyses, Rec. XII, 934.

Clams—

- as food, Rec. X, 678.
- culture, Rec. XI, 80, 599.
- green, of Tuckerton, N. J., Rec. V, 411.

Clania lewinii, notes, Rec. XI, 658.

"Clariphos" as clarifying agent, Rec. XI, 293.

Classen Agricultural School at Nasgaard, Denmark, report, Rec. IX, 298.

Clasterosporium—

- amygdalearum*, notes, Rec. XI, 465; XII, 963.
- populi*, notes, Rec. III, 810.

Clavaria phyllophila, notes, Rec. VII, 748.

Claviceps purpurea, Rec. III, 172; IV, 50, 925; VII, 39.

(See also ERGOT.)

Clay-colored weevil, remedies, Rec. XI, 766.

Clay—

- analyses, Bul. 2, I, 22; Rec. II, 70; III, 590; IV, 337, 787; V, 217, 362, 737; VII, 366; VIII, 482, 563; X, 194, 235, 716; XII, 214.
- analysis, methods of, Rec. XII, 622.
- flocculation by lime, Rec. V, 695.
- formation, Rec. XII, 124.
- industries of New York, Rec. VII, 258.
- in soils, determination, Rec. IV, 388; VI, 118; XI, 903.
- land, cultivation, Rec. VI, 706.
- loam, movement of water, Rec. II, 445.
- Piedmont red, improvement, Rec. XI, 497.
- soils—
 - as affected by application of lime, Rec. III, 581.
 - fertilizer experiments on, Rec. X, 275; XII, 1008.

Clay—Continued.

soils—continued.

liming, Rec. IV, 222, 315, 435; IX, 1043.

porosity as affected by liming, Rec. IV, 377.

salt in, Rec. V, 346.

study of physical properties, Rec. XII, 525.

Claytonia perfoliata, notes, Rec. III, 598, 599; IX, 141.*Cleigastrea (armillata?)*, notes, Rec. X, 65.

Cleistogamous flowers, studies, Rec. XII, 312.

Clematis—*buchaniana*, notes, Rec. XII, 854.*coccinea*, notes, Rec. IV, 656.*drummondii*, notes, Rec. X, 343.*flammula*, notes, Rec. IV, 656.*jackmanni*, notes, Rec. IV, 656.*virginiana*, notes, Rec. IV, 656.*viticelli*, notes, Rec. IV, 656.*Clematis*—

bacterial disease, Rec. V, 515, 1018.

disease, Rec. IX, 659; X, 764.

hardy species, Rec. IX, 650.

hybrid, Rec. XII, 613.

new, description, Rec. XII, 854.

notes, Rec. XI, 650; XII, 247.

root disease, Bul. 2, I, 166.

species, Rec. X, 153.

sweet, European, notes, Rec. IV, 656.

Clematis, descriptions and classification, Rec. X, 440.*Cleome integrifolia*, notes, Rec. II, 279, 496; III, 52; VIII, 703.*Cleonus punctiventris*, notes, Rec. VIII, 321; IX, 256.*Cleora*—*pedicellata*, notes, Rec. X, 372.*subaustralis*, notes, Rec. X, 372.*Clerus formicarius*—

importation from Europe, Rec. IV, 699.

notes, Rec. V, 516; VI, 654; IX, 857, 962; XI, 475.

Clethra alnifolia, notes, Rec. IV, 655.

Cleveland Concentrated Meal, analyses, Rec. V, 312.

Cleveland Standard Feed, analyses, Rec. V, 312.

Chianthus damprii, culture, Rec. XI, 549.

Click beetles, notes, Rec. III, 450; VIII, 906; IX, 664.

Climate— (See also METEOROLOGY.)

amelioration, Rec. X, 125.

ancient—

near Chicago, Rec. VIII, 111.

of Arizona, Rec. IX, 531.

and crime, Rec. IX, 424.

and crop—

conditions, changes in forms for reporting, Rec. XI, 127.

report, Alaska, Rec. XI, 129.

service in Porto Rico, Rec. XI, 430.

service publications, Rec. XI, 127, 429.

service summaries, Rec. XI, 430.

work, Rec. XI, 621.

and flora, Rec. XII, 1015.

plant growth in Argentina, Rec. XI, 82.

and rainfall—

as influenced by vegetation, Rec. X, 327.

Climate—Continued.

and rainfall—continued.

influence on form of fruit, Rec. VI, 279.
of Texas, Rec. X, 126.

and soil—

influence of snow on, Rec. V, 730.

influence on variation of seed, Rec. VIII, 288.

relations, Rec. IV, 276; VI, 794.

as a factor in transmission of electrical energy, Rec. IX, 814.

as affected by—

forests, Rec. V, 94; XII, 522.

irrigation, Rec. VIII, 351.

as related to sap pressure, Rec. XI, 118.

effect on—

agricultural soils of Tunis, Rec. VIII, 574.

composition of plants, Rec. IV, 108.

composition of soils, Rec. X, 333.

crops, Rec. IX, 501.

diameter increment of conifers, Rec. XI, 515.

forests, Rec. VIII, 604.

fruits, Rec. VI, 638.

growth of trees, Rec. IX, 562.

man, Rec. XI, 430; XII, 981.

quality of apples, Rec. VI, 297.

plant growth, Rec. X, 720.

sugar beets, Rec. II, 112; XII, 121.

various forest trees, Rec. XI, 455.

vegetation, Rec. VIII, 291.

in arid regions, Rec. XII, 1015.

influence—

in development of rust, Rec. VI, 645.

on growth of fir trees, Rec. VII, 508.

soils, Rec. IV, 871.

of Alaska, Rec. IX, 424, 426; XI, 31.

Allegany County, Maryland, Rec. XII, 1017.

Amherst, Massachusetts, Rec. V, 280.

Arkansas Valley, Rec. V, 1074.

Athens, Rec. X, 1018.

California, Rec. XII, 521.

Canada, Rec. XI, 430.

Chicago, Illinois, Rec. V, 219.

Colorado, Rec. X, 1019.

Cuba, Rec. X, 326; XI, 30; XII, 520.

Death Valley, Rec. IV, 198.

eastern Texas, as related to horticulture, Rec. V, 352.

Hérault, Rec. XII, 648.

Klondike, Rec. X, 930.

Liberia, Rec. X, 325.

Louisiana, Rec. V, 825.

Maryland, Rec. V, 825; XII, 1098.

Mexico, Rec. VI, 172; XI, 31.

Michigan, Rec. XII, 695.

Missouri, Rec. XII, 25.

New York, Rec. XII, 28.

North Carolina, Rec. III, 93; IV, 462; V, 325.

Oklahoma, Rec. XI, 1017.

our new possessions, Rec. XII, 317.

Panama, Rec. XI, 430.

Porto Rico, Rec. XI, 30; XII, 795.

San Diego, Rec. XII, 119.

San Francisco, Rec. XII, 27.

southern and western Asia, Rec. VIII, 755.

Spokane, Rec. XII, 1015.

St. Kitts, Rec. XII, 25, 119, 831.

Climate—Continued.

- of St. Lawrence Island, Rec. XI, 819.
 Sweden, Rec. XII, 522.
 Tennessee, Rec. XII, 316.
 Tunis, Rec. X, 827.
 Turkestan, Rec. XI, 329.
 the British Empire, Rec. XII, 921.
 the cotton belt, Rec. XII, 433.
 the Isthmus of Panama, Rec. XI, 517, 620.
 the Kongo, Rec. XI, 128.
 the Philippines, Rec. XII, 119.
 the Valley of Mexico, Rec. XII, 425.
 various countries, Rec. VIII, 755.
 Washington, D. C., Rec. X, 1018.
 Wyoming, Rec. IV, 709, 956.

photochemical, of Arctic regions, Rec. XI, 128.

relation to—

- health, Rec. V, 281; VII, 97.
 tree growth, Rec. VII, 962.

studies, Rec. XI, 127.

v. weather, Rec. XI, 222.

Climates—

- and crops, changes, Rec. IX, 424.
 of geological ages, Rec. X, 419.

Climatic—

- and cultural conditions of Sweden, Rec. IX, 445.
 changes, local, Rec. IX, 814.
 data, interchange, Rec. XI, 127.
 features of Maryland, Rec. V, 825.

Climatological—

- atlas of the Russian Empire, Rec. XII, 831, 834.
 data for—
 Jamaica, Rec. IX, 424.
 Mexico, Rec. VIII, 207, 475, 675, 676.
 publications, American, Rec. X, 1018.

Climatology—

- and horticulture, interrelation, Rec. VI, 507.
 as distinguished from meteorology, Rec. IX, 1034.
 Hahn's handbook of, Rec. X, 419.
 in Belgium, Rec. X, 827.
 the German Empire, Rec. VIII, 755.
 Mexican, Rec. IX, 30, 424.
 notes, Rec. X, 325.
 of cotton plant, Rec. IV, 762.
 sugar beet, Rec. IX, 121.
 polar v. equatorial, Rec. X, 419.
 recent progress in, Rec. VIII, 111.
 station, agricultural, at Juvisy, Rec. XI, 821.
 topographical, Rec. VII, 845.
 v. meteorology, Rec. X, 418.

Climax Insect Poison—

- for codling moth, Bul. 2, II, 32.
 elm leaf beetle, Rec. III, 298.
 with ammoniacal carbonate of copper, Rec. III, 308.

Climbers, ornamental, notes, Rec. XII, 347.

Climbing—

- buckwheat, analyses, Rec. III, 629.
 honeysuckle, notes, Rec. III, 788.
 prairie rose, notes, Rec. III, 522.

Clinodiplosis vitis, notes, Rec. XII, 272.

Clisiocampa— (See also TENT CATERPILLARS.)

Clisiocampa—Continued.

- americana*, notes, Bul. 2, I, 177; Bul. 2, II, 58;
 Rec. I, 283; II, 115, 654; III, 46, 175, 198, 230,
 313, 792; IV, 661; V, 64, 310; VIII, 613, 999;
 IX, 371, 458, 858; X, 369, 1042, 1067; XI, 169,
 863; XII, 68, 860.

californica, notes, Rec. IV, 839; VI, 313.

constricta, notes, Rec. VI, 313, 836.

distria—

- effect on maple sugar, Rec. XII, 69.
 notes, Rec. II, 115, 654; III, 198, 313, 396;
 X, 1067; XI, 169, 863, 952, 954; XII, 68,
 263, 269, 272.

erosa, notes, Rec. VI, 836.

fragilis, notes, Rec. VIII, 611; X, 871.

pluvialis, notes, Rec. VI, 836.

spp., notes, Bul. 2, II, 28; Rec. II, 81; III,
 54, 55.

sylvatica. (See FOREST TENT CATERPILLAR.)

thoracica, notes, Rec. VI, 313.

Clitoria mariana, notes, Rec. X, 343.

Clostridium—

butyricum, notes, Rec. XI, 255.

licheniforme—

- effect in ripening cheese, Rec. XI, 787.
 biological studies, Rec. X, 1096.
 sp., in prepared milk, Rec. XII, 186.

Clotbur—

- analyses, Rec. III, 629.
 eradication, Rec. XI, 749.
 notes, Rec. V, 529.

(See also COCKLEBUR.)

Clothes beetle, new, Rec. II, 495.

Clothes moths—

- notes, Rec. I, 224; VI, 1007; IX, 64; XI, 955.
 remedies, Rec. VIII, 241; X, 655.

Clothing and temperature, Rec. IX, 424, 425.

Cloud—

- banks, distant, Rec. IX, 814, 815.
 committee, report, Rec. XII, 920.
 forms, Rec. VIII, 676.
 forms, height and velocities, Rec. IV, 429.
 heights, Rec. IX, 424.
 heights at Toronto, Rec. IX, 531.
 measurements, Rec. VIII, 675; IX, 30, 424.
 names, international, Rec. XI, 222.
 observations, Rec. VIII, 207, 755.
 observations—
 international, Rec. IX, 30; XI, 620, 621;
 XII, 831.
 in Victoria, Rec. XI, 222.
 utilization in weather predictions, Rec.
 V, 1086.
 phenomena at sunrise and sunset, Rec. X,
 1018.
 photography, Rec. VII, 474; VIII, 755; X,
 615; XII, 918.
 roll, horizontal, Rec. VII, 474.
 studies in Sweden, Rec. XI, 129.
 work for United States, Rec. XII, 118.

Cloudburst in Tennessee, Rec. XII, 521.

Clouds—

- altitudes, Rec. IX, 814.
 billow, wave of, Rec. XI, 222.
 cirrus, Rec. IX, 424.
 cumulus, at fires, Rec. X, 124; XII, 1015,
 1016.
 formation and classification, Rec. III, 93;
 VI, 970.

Clouds—Continued.

- relation to rainfall, *Rec. VII*, 287.
- stereoscopic study, *Rec. IX*, 30.
- upper, and weather changes, *Rec. X*, 124.
- whirling—

- alto-cumulus, *Rec. X*, 124.
- alto-stratus, *Rec. IX*, 424.

Cloudy condensation, *Rec. IX*, 815.

Clover (kind not specified)—

- American, *Rec. X*, 147.

American—

- characteristics, *Rec. IV*, 875.
- in Germany, *Rec. V*, 731.
- v. German*, *Rec. VI*, 807.

- analyses, *Bul. 2*, *II*, 38, 129; *Rec. II*, 200, 329, 435, 580; *III*, 41, 158, 375, 401; *IV*, 646; *V*, 64, 500, 596, 875; *VI*, 404, 569, 752; *VII*, 155; *VIII*, 81; *IX*, 268; *X*, 72, 276; *XI*, 436, 617; *XII*, 281, 471.

- and cheat, relative digestibility, *Rec. IX*, 867.

and grass—

- culture for soiling, *Rec. IV*, 29.
- mixtures for meadows, *Rec. X*, 847.
- mixtures for resowing winter-killed fields, *Rec. XI*, 44.
- seed, mixing, *Rec. II*, 602.
- seed, mixtures, *Rec. VII*, 32.

- and oats, fertilizer experiments, *Rec. X*, 750.
- sorrel, relative growth upon acid soil before and after liming, *Rec. VIII*, 584.

- as a cover crop for orchards, *Rec. V*, 874; *VII*, 585; *X*, 252; *XI*, 844.

- forage plant, *Rec. III*, 28, 30.
- preliminary crop, *Rec. VI*, 203.
- soil renovator, *Bul. 2*, *I*, 23.

as affected by—

- lime, *Rec. VIII*, 595; *IX*, 641.
- phosphates, *Rec. V*, 929; *IX*, 28.
- sulphuric acid, *Rec. XII*, 45.

- asparagin in, *Rec. III*, 65.

- bark louse, notes, *Rec. III*, 860.

- beetle, notes, *Rec. IX*, 74.

- bibliography of insects affecting, *Rec. I*, 292.

- bumblebees for fertilizing, *Rec. IV*, 84.

- chemical development, *Rec. VI*, 522; *VII*, 396.

- continuous cropping, *Rec. X*, 236.

- cultural value of different kinds, *Rec. VIII*, 686.

- culture, *Rec. X*, 542, 835; *XI*, 927.

culture—

- experiments, *Bul. 2*, *I*, 64; *Rec. I*, 122, 254; *II*, 5, 147, 172, 200, 375, 395, 396, 411, 511, 580, 633, 642; *III*, 82, 85, 599, 703, 860; *IV*, 108, 248, 449, 646; *V*, 38, 391, 392, 577, 625, 679, 844, 870, 871; *VI*, 35, 215, 294, 296, 405, 531, 542; *VII*, 26, 120, 295, 296, 396, 496; *VIII*, 46, 308, 401, *IX*, 741; *X*, 244, 340, 429, 835, 1068; *XI*, 43.

- in Arkansas, *Rec. XII*, 634.

- Michigan, *Rec. X*, 147.

- curing, *Rec. X*, 539.

- curing on racks, *Rec. IX*, 241.

- curing on racks *v.* field curing, *Rec. IX*, 439.

- cutworms, notes, *Rec. IX*, 856; *X*, 165.

- damage to, in Michigan, *Rec. VI*, 740.

- digestibility, *Bul. 2*, *II*, 129; *Rec. I*, 35; *IX*, 867; *X*, 1082.

Clover—Continued.

- dodder in, *Rec. IX*, 361; *X*, 54, 259.

- drasteria, notes, *Rec. III*, 784; *VI*, 649.

- drought affecting, *Rec. V*, 621.

- dry matter in, *Rec. V*, 482.

- early *v.* late cut, *Rec. III*, 41.

- ensiling, *Rec. I*, 229.

- ensiling, changes in, *Rec. II*, 431, 449.

- fertilizer experiments, *Rec. III*, 293; *V*, 292, 1029, 1085; *VI*, 28; *VII*, 121, 579; *VIII*, 485; *IX*, 45, 235, 340, 823; *X*, 432, 750, 950, 1037; *XI*, 230, 530, 641, 1027; *XII*, 127, 337.

- field curing *v.* drying on racks for, *Rec. IX*, 439.

- field experiments, *Bul. 2*, *I*, 66.

- for green manuring, *Rec. VIII*, 969; *IX*, 825; *X*, 35, 845; *XI*, 254, 832.

- jack-pine plains, *Rec. II*, 357.

- meadows and pastures, *Rec. II*, 238; *III*, 398.

- pigs, *Rec. II*, 676, 736; *III*, 130; *IV*, 262; *XI*, 570.

- soiling, *Rec. IV*, 480; *V*, 992.

- fungus diseases, *Rec. II*, 422, 602; *VII*, 592; *IX*, 957; *X*, 652; *XI*, 59.

green—

- for cows, *Rec. III*, 131.

- hens, *Rec. III*, 36.

- growth as affected by light, *Rec. XI*, 815.

hay—

- analyses, *Bul. 2*, *II*, 39; *Rec. II*, 50, 504; *III*, 296; *IV*, 733; *V*, 64; *VI*, 274, 1008; *VII*, 835; *VIII*, 426, 508, 520; *IX*, 786, 969; *X*, 474, 1033; *XII*, 378.

- and sunflowers for milk production, *Rec. V*, 634.

- caterpillar, *Rec. X*, 1066.

- cut *v.* uncut for steers, *Rec. III*, 512.

- digestibility, *Bul. 2*, *I*, 132; *Bul. 2*, *II*, 128; *Rec. VIII*, 423, 511; *XII*, 873.

- effect on volatile fatty acids of butter, *Rec. V*, 974.

- effect on yield of milk, *Rec. V*, 969.

- fat content, *Rec. V*, 801.

- fertilizing constituents, *Bul. 2*, *I*, 133.

- for calves, *Rec. III*, 221.

- cows, *Rec. III*, 217.

- lams, *Rec. VIII*, 1008; *XI*, 666.

- steers, *Rec. III*, 41.

- nutritive value, *Rec. XI*, 73.

- spontaneous combustion, *Rec. X*, 880.

- utilization, *Rec. I*, 196.

hay worm—

- notes, *Bul. 2*, *II*, 118; *Rec. III*, 97, 414, 784; *V*, 989; *VI*, 65, 313, 648; *X*, 1066.

- oviposition, *Rec. III*, 812.

- head caterpillar, notes, *Rec. VI*, 649.

- head thrips, notes, *Rec. VI*, 649.

- injury by pocket gophers, *Rec. VII*, 26.

- insect enemies, *Rec. I*, 292; *II*, 602; *III*, 97; *VI*, 648; *VIII*, 911; *XI*, 563.

- introduction into Europe, *Rec. X*, 432.

- irrigation experiments, *Rec. IX*, 595; *X*, 747; *XII*, 40.

leaf beetle—

- in Maryland, *Rec. VI*, 440.

- Pennsylvania, *Rec. III*, 812.

Clover—Continued.

leaf beetle—continued.

notes, Rec. III, 298, 309.

remedies, Rec. XI, 561.

leaf hopper, notes, Rec. III, 784.

leaf mite, notes, Rec. IX, 63, 767, 858.

leaf weevil—

in Connecticut, Rec. IV, 284.

Italy, Rec. V, 654.

Ohio, Rec. IV, 373.

notes, Rec. VI, 648, 652; VIII, 505.

prevalence, Rec. IV, 852.

liming experiments, Rec. XII, 625.

meal, analyses, Rec. XII, 169, 281.

midge, notes, Rec. VIII, 809.

mite—

notes, Rec. II, 258; VI, 837; VII, 143, 967;

XII, 368.

remedies, Rec. IX, 260, 261; X, 661.

mixtures, trials, Rec. XII, 740.

moth, notes, Rec. IX, 74.

nematodes on, Rec. V, 822; VI, 147.

notes, Bul. 2, II, 84, 85; Rec. II, 69, 70, 200, 238, 271, 597, 601, 650, 658; III, 28, 30; V, 397, 623, 625, 803, 871; VI, 294; XII, 28, 339; XII, 945.

on chalk soils, Rec. V, 708.

on soil treated with carbon bisulphid, Rec. VII, 32.

parasites, Rec. X, 556.

pollen-distributing insects, Rec. VIII, 268.

resowing, Rec. XI, 44.

root borer—

notes, Bul. 2, II, 118; Rec. III, 97; IV, 437; VI, 65, 648; VIII, 505; IX, 855; X, 164; XII, 576.

remedies, Rec. I, 138.

root—

development, Rec. V, 482.

mealy bug, notes, Rec. VI, 649, XI, 957.

rot, notes, Rec. VI, 828.

roots—

analyses, Bul. 2, I, 57.

length at different ages, Bul. 2, II, 85.

rotation experiments, Rec. IV, 872; V, 128, 713; XII, 1030.

rowen—

analyses, Rec. VIII, 426, 810; IX, 786, 873; XI, 882.

digestibility, Rec. VIII, 423.

for soiling, Rec. IV, 480.

v. cabbage for egg production, Rec. X, 676

rust—

injury by, Rec. III, 217.

notes, Rec. II, 421; III, 217, 479; IV, 50; X, 260.

Clover seed—

absorption of water by, Rec. XI, 1056.

American, Rec. V, 821; X, 397.

American—

analyses, Rec. V, 911.

control, Rec. VI, 851, 903.

dodder, Rec. X, 259.

examination, Rec. V, 191, 821, 911; VII, 871.

exclusion from Austria-Hungary, Rec. X, 259.

origin, Rec. V, 653, 911.

v. Bohemian, Rec. XI, 1037.

Clover seed—Continued.

American—continued.

v. European, Rec. III, 266.

German, Rec. V, 347; VI, 57.

analyses, Rec. IX, 956.

caterpillar, notes, Rec. III, 222, 327, 784; IV, 204, 730; V, 101, 989; VI, 313.

chalcidid, notes, Rec. X, 1059.

commercial, Rec. II, 601.

different colored, value, Bul. 2, II, 39.

dodder in, Rec. V, 334, 925; VI, 428; XI, 462, 750.

examination, Bul. 2, I, 174; Rec. VI, 428, 903; VII, 688, 871; IX, 757; X, 966.

germination tests, Rec. II, 317; III, 217, 356; V, 334, 628; VI, 429, 638; VII, 509; VIII, 891; IX, 1055; X, 966; XII, 565.

importance of origin, Rec. VIII, 58.

impurities in, Rec. I, 254; V, 191, 334; VI, 430; VII, 688; VIII, 58; XI, 353; XII, 959.

midge—

notes, Bul. 2, II, 118; Rec. III, 97, 197, 218; IV, 204; VI, 65, 313, 648; X, 165, 1066.

remedies, Rec. I, 138, 292; XI, 559.

notes, Rec. XII, 251, 1051.

origin, Rec. V, 653; VIII, 58; IX, 757.

perforation of seed coats, Rec. VII, 872.

pest, notes, Rec. IX, 662.

studies, Rec. XII, 959.

viability, Rec. XI, 157.

vitality, Rec. VI, 641; VII, 872.

weed seeds in, Rec. I, 24; V, 191, 399; VI, 429, 430, 903; XI, 54, 1054; XII, 349, 959.

weevil, notes, Rec. III, 222.

Clover seeding—

at different dates, Bul. 2, II, 39.

different rates, Rec. X, 835.

experiments, Rec. XII, 631.

with grain, effect on succeeding crop, Rec. VIII, 689.

grain, effect on yield, Rec. IX, 833.

nurse crops, Rec. XII, 629.

nurse wheat, Rec. XII, 640.

Clover—

sickness, prevention, Rec. VI, 58.

silage—

analyses, Bul. 2, I, 209; VI, 569.

digestibility and heat of combustion, Rec. XII, 873.

preparation, Rec. VII, 396.

v. corn silage for cows, Rec. IV, 482.

soil tests with, Rec. X, 938.

stem borer—

as a gall maker, Rec. I, 41.

food plants, Rec. II, 603.

life history, Rec. II, 603.

notes, Rec. VI, 649.

straw, analyses, Rec. VI, 1008.

superphosphate on chalk soils for, Rec. V, 708.

thrips, Bul. 2, II, 92.

treatment for Orobanche, Rec. XI, 159.

varieties, Rec. I, 69; II, 375, 395, 396, 511, 542, 633; VI, 343; VIII, 268, 975; IX, 241; X, 238, 628, 836; XI, 43, 632; XII, 229, 629.

v. alfalfa as a feeding stuff, Rec. VIII, 813.

prickly comfrey for forage, Rec. II, 435.

rape for pigs, Rec. XI, 570.

sour grass for milk production, Rec. X, 1083.

Clover—Continued.

- water required by, *Rec. V*, 484.
 weevils, notes, *Rec. III*, 222; *XII*, 1059.
- Clover, alsike—
 analyses, *Bul. 2, II*, 38, 51; *Rec. II*, 320, 580, 644; *III*, 158; *VI*, 404, 569, 752, 1008; *VII*, 155; *IX*, 268; *XI*, 436, 617; *XII*, 471.
 as a forage plant, *Rec. III*, 28, 30, 51.
 culture experiments, *Rec. I*, 122; *II*, 633; *IV*, 646; *V*, 38, 577; *VI*, 35, 294, 296, 405, 531; *VII*, 26, 116, 120, 295, 296; *VIII*, 46, 885, 970; *IX*, 741.
 digestibility, *Bul. 2, II*, 54, 61.
 fertilizer, experiments, *Rec. II*, 580.
 for bees, *Rec. V*, 102.
 honey and forage, *Rec. VII*, 594.
 jack-pine plains, *Rec. II*, 357.
 meadows and pastures, *Rec. II*, 238.
 notes, *Bul. 2, II*, 85; *Rec. II*, 69, 238, 329, 597, 601, 633, 650; *V*, 870, 871; *VI*, 294, 542, 635; *X*, 547.
 length of roots at different ages, *Bul. 2, II*, 86.
 seed, germination tests, *Rec. V*, 910, 911.
 seed, viability, *Rec. XI*, 157.
- Clover, Beckwith—
 analyses, *Rec. VI*, 404.
 notes, *Rec. VIII*, 306.
- Clover, bird's foot, *Bul. 2, I*, 189; *Rec. II*, 650.
- Clover, Bokhara. (*See SWEET CLOVER.*)
- Clover, Brabant, notes, *Rec. X*, 348.
- Clover, Brazilian, notes, *Bul. 2, I*, 189.
- Clover, bur—
 analyses, *Rec. III*, 890; *IV*, 646, 732; *X*, 276.
 culture experiments, *Rec. I*, 122.
 notes, *Rec. II*, 601; *III*, 598, 890; *IV*, 47, 248; *VI*, 215; *VII*, 296; *X*, 343; *XII*, 332.
 (*See also* *MEDICAGO DENTICULATA* and *MEDICAGO MACULATA.*)
- Clover, bush, analyses, *Rec. V*, 64.
- Clover, crimson—
 American *v.* European, *Rec. IX*, 134.
 analyses, *Rec. III*, 687, 690; *IV*, 646; *V*, 392, 410, 596; *VI*, 204, 404, 842; *VII*, 299, 614, 702; *IX*, 682; *X*, 946; *XI*, 436; *XII*, 378, 471.
 and rye, analyses, *Rec. XI*, 777.
 as a catch crop, *Rec. VII*, 121.
 forage plant, *Rec. III*, 51.
 green manure, *Rec. IV*, 208, 557; *V*, 391, 699, 776; *VI*, 205; *VIII*, 216; *IX*, 134; *XI*, 833.
 chaff, analyses, *Rec. VI*, 842.
 crown disease, *Rec. X*, 446.
 culture, *Rec. IX*, 446, 551, 899; *X*, 42, 147, 542; *XI*, 926.
 culture—
 experiments, *Rec. I*, 197; *III*, 687, 860; *IV*, 29, 139, 248, 411, 557, 646; *V*, 161, 577, 781; *VII*, 26, 27, 295, 673; *VIII*, 401, 586, 687, 883, 970; *IX*, 45, 243; *X*, 348.
 in Arkansas, *Rec. XII*, 634.
 France, *Rec. V*, 627.
 digestibility, *Rec. IV*, 736; *X*, 348.
 fertilizer experiments, *Rec. XII*, 931.
 for orchards, *Rec. VIII*, 312, 490; *IX*, 950; *X*, 252; *XI*, 1047; *XII*, 558.
 pasture, *Rec. VI*, 206.
 silage and hay, *Rec. VII*, 954.

Clover, crimson—Continued.

- for soiling, *Rec. VI*, 206.
 fungus disease, *Rec. X*, 446.
 hair balls, *Rec. VIII*, 623.
- hay—
 analyses, *Rec. V*, 64; *VIII*, 426.
 digestibility, *Rec. VIII*, 423.
 for cows, steers, and goats, *Rec. V*, 1081.
 in Michigan, *Rec. VII*, 382.
 muriate of potash for, *Rec. VIII*, 490.
 nitrogen content, *Rec. V*, 347.
 notes, *Bul. 2, I*, 164; *Rec. II*, 69, 601, 633, 650; *VII*, 296, 581; *XII*, 329.
 rot, *Rec. III*, 689.
- seed—
 analyses, *Rec. VI*, 842.
 germination tests, *Rec. V*, 910; *VI*, 429; *XI*, 478.
 notes, *Rec. XII*, 758.
 viability, *Rec. XI*, 157.
- seed huller, *Rec. V*, 796.
- seeding, *Rec. III*, 687; *VI*, 632; *VIII*, 881; *XII*, 145.
- straw, analyses, *Rec. VI*, 842.
- Clover, Egyptian—
 culture, *Rec. VII*, 383; *VIII*, 401, 490.
 varieties, *Rec. VII*, 383.
- Clover, hop, notes, *Rec. V*, 910.
- Clover, Hungarian, *Rec. V*, 907.
- Clover, Japan. (*See JAPAN CLOVER.*)
- Clover, Mexican. (*See MEXICAN CLOVER.*)
- Clover, peavine, culture experiments, *Rec. VI*, 531.
- Clover, red. (*See CLOVER, KIND NOT SPECIFIED.*)
- Clover, Russian, notes, *Rec. XII*, 332.
- Clover, sapling, culture experiments, *Rec. X*, 244.
- Clover, snail—
 adaptation, *Rec. III*, 596.
 analyses, *Rec. VIII*, 714.
 culture experiments, *Rec. VIII*, 687; *X*, 245.
- Clover, sweet. (*See SWEET CLOVER.*)
- Clover, white—
 analyses, *Bul. 2, II*, 51; *Rec. II*, 50; *VI*, 404, 569; *X*, 72; *XI*, 436.
 as a forage plant, *Rec. III*, 28, 30.
 ash analyses, *Rec. V*, 438.
 carbohydrate reserve material in seeds, *Rec. XII*, 313.
 culture experiments, *Rec. I*, 122; *IV*, 646; *V*, 161, 786, 870; *VI*, 35, 294, 296, 542; *VII*, 26; *VIII*, 46, 401, 970; *X*, 244.
 digestibility, *Bul. 2, II*, 55, 61; *Rec. X*, 1082.
 for jack-pine plains, *Rec. II*, 357.
 lawns, *Rec. III*, 532.
 meadows and pastures, *Rec. II*, 238.
 length of roots at different ages, *Bul. 2, II*, 86.
 notes, *Bul. 2, II*, 85; *Rec. II*, 50, 238, 601, 650; *III*, 28, 30; *VII*, 26; *X*, 244.
- seed—
 germination tests, *Rec. V*, 910, 911; *VI*, 429.
 viability, *Rec. XI*, 157.
 virescence, *Rec. XII*, 572.
- Clover, wild yellow, analyses, *Rec. VIII*, 714.
- Clover, yellow sweet, for green manuring, *Rec. XII*, 1031.
- Clover, zigzag, culture experiments, *Rec. VI*, 35.

Clovers—

and grasses—

- culture for soiling, Rec. IV, 29.
- effect of ripeness on yield and chemical qualities, Bul. 2, I, 66.
- experiments, Rec. II, 69, 70, 632, 633.
- for meadows and pastures, Rec. VI, 405.
- handbook, Rec. IX, 1048.
- of different regions, comparison, Rec. XI, 156.
- tests of mixtures, Bul. 2, II, 84.
- common names, Rec. VII, 396; X, 147.
- for the South, notes, Rec. XI, 241.
- production of new types, Rec. X, 927.

Cloves, analyses, Rec. X, 281.

Club root— (See also CABBAGE and TURNIP CLUB ROOT.)

- in the United States, Rec. III, 810.
- on *Capsella bursa-pastoris*, Rec. VIII, 412.
- treatment, Rec. VI, 994; VII, 224, 413, 513; VIII, 606, 895; IX, 251, 851, 957; XI, 555; XII, 572.

Cnethocampa—

- herculana*, notes, Rec. VIII, 807.
- pinivora*, notes, Rec. VIII, 417, 807.
- pityocampa*, notes, Rec. VIII, 807.

Cnicus—*arvensis*—

- analyses, Rec. III, 629.
- law regarding, Rec. I, 323.
- notes, Rec. II, 655, 745; III, 45, 217, 308, 893; IV, 47, 472; V, 911; VI, 145, 822; VII, 38, 689.
- root system, Rec. IV, 45.
- (See also THISTLE, CANADA.)

lanceolatus—

- analyses, Rec. III, 629.
- notes, Rec. III, 308, 893; IV, 47; VI, 551, 822; VII, 689.

odoratus, notes, Rec. V, 398.*scariosus*, notes, Rec. III, 52.*undulatus*, notes, Rec. VIII, 703; XII, 420.*virginianus*, notes, Rec. II, 745.

Coagulation, investigations, Rec. IV, 873.

Coal—

- analyses, Bul. 2, I, 22; Rec. I, 4; II, 275, 514; VIII, 377; X, 194, 716; XI, 314; XII, 214.

ashes—

- analyses, Rec. III, 162; VII, 294; VIII, 117, 389; X, 232; XI, 314.
- utilization, Rec. VIII, 314.

bituminous, analyses, Rec. I, 221.

determination of heat value, Rec. VII, 809.

dust—

- analyses, Rec. I, 80.
- as a fertilizer, Rec. VII, 197.

quality, Rec. III, 625.

smoke for grape black rot, Rec. VIII, 318.

tar colors—

- detection in canned tomatoes, Rec. XII, 715.

detection in food products, Rec. XI, 1100.

detection in fruit products, Rec. XII, 821.

effect on digestion, Rec. VIII, 809.

titmouse, Rec. IX, 230.

Coal—Continued.

Wyoming, analyses, Rec. XI, 314.

Coast sands of France, reclamation, Rec. VI, 794.

Cob meal, analyses, Rec. I, 197.

Cobalt, effect on plants, Rec. VII, 467.

Coca—

- cultivation in India, Rec. VI, 44.
- leaves, Ceylon, Rec. VI, 44.

Coccidæ— (See also SCALE INSECTS.)

- affecting grasses, Rec. XII, 466.
- associated with ants, Rec. VIII, 711.
- check list, Rec. VIII, 417.
- distribution, Rec. V, 515, VIII, 416.
- investigations, Rec. X, 975.

Italian, of fruit trees, Rec. IX, 159.

maritime species, Rec. VI, 563.

new species, notes, Rec. VI, 443; VII, 44, 417, 517; IX, 260, 371.

notes, Rec. VIII, 911; XI, 274, 476.

of Brazil, Rec. XII, 580.

Ceylon, Rec. XI, 476.

Georgia, notes, Rec. XII, 861.

Jamaica, food plants, Rec. IV, 668, 851.

Kansas, Rec. X, 771; XII, 369.

New Zealand, Rec. VII, 315.

Porto Rico, Rec. XII, 162.

Western Australia, Rec. XI, 871.

parasites, Rec. X, 170.

Coccidia—

life history, Rec. XI, 658.

of digestive tube of Myriapods, Rec. IX, 158.

Coccidium bigeminum, notes, Rec. III, 501.

Coccidium—

development of sporozoa, Rec. IX, 1093.

from the skin of a mouse, Rec. VIII, 159.

life history, Rec. XI, 658.

origin of cancer, Rec. VI, 932.

Coccids—

fatal temperature, Rec. XI, 953.

gall-making, Rec. VII, 516, 968; VIII, 70.

Coccinella—

abdominalis, notes, Rec. VI, 741.

californica, notes, Rec. VI, 741.

(*Leis*) *conformis*, notes Rec. VI, 741.

9-notata, Rec. II, 116; VI, 150.

novempunctata, notes, Rec. IV, 58.

oculata, notes, Rec. VI, 741.

repanda, notes, Rec. VIII, 507.

sanguinea, notes, Rec. VI, 741.

7-punctata, notes, Rec. IX, 1071; XI, 765.

sp., notes, Rec. III, 175.

transversoguttata, notes, Rec. VIII, 910; XI, 470.

trifasciata juliana, notes, Rec. V, 741.

Coccinellidæ—

Italian, of citrus fruits, Rec. V, 732.

monograph, Rec. XI, 562.

notes, Rec. VI, 313.

of Japan, catalogue, Rec. VII, 698.

Tasmanian, notes, Rec. V, 514.

Cocco bacillus of Pfeiffer, Rec. XII, 393.

Coccophagus—

fletcheri, notes, Rec. IX, 668.

lecanii, parasitic on plum scale, Rec. VIII, 143.

Coccotorus—

prunicida, notes, Rec. II, 104; IX, 151.

scutellaris, notes, Rec. X, 369.

- Coccus*—
agavium, notes, Rec. IX, 260.
cacti, notes, Rec. XI, 958.
lacca, notes, Rec. XI, 958.
trifolii, notes, Rec. III, 860.
- Cochineal—
detection in canned tomatoes, Rec. XII, 715.
insect, notes, Rec. V, 884; IX, 260; XI, 477.
- Cochylis*—
ambigua—
notes, Rec. VIII, 70.
remedies, Rec. V, 129, 821; X, 872.
roserana, notes, Rec. IX, 464.
- Cochylis*—
parasitic fungus, Rec. V, 348.
remedies, Rec. X, 67; XI, 174, 372, 565.
winter and spring treatment, Rec. V, 1100.
- Cockchafer—
biology, Rec. VIII, 610.
notes, Rec. XI, 562.
remedies, Rec. VII, 968; VIII, 1002.
Russian, Rec. VII, 793.
- Cockerels *v.* capons—
feeding experiments, Rec. XII, 676.
growth, Rec. IV, 939.
- Cocklebur— (*See also* XANTHIUM and CLOTBUR.)
dagger—
law regarding, in Oregon, Rec. IV, 47.
notes, Rec. IV, 47, 699; VII, 135.
eradication, Rec. IX, 142; XI, 749.
law regarding, Rec. I, 323.
notes, Rec. III, 893; VI, 145, 732; VIII, 234, 624; XI, 858; XII, 961.
root system, Rec. IV, 46.
spiny, notes, Rec. VI, 822; VII, 689.
- Cockroach—
breeding habits, Rec. VII, 881.
eggs, parasites, Rec. IV, 852.
German, Rec. VIII, 908.
viviparous, notes, Rec. III, 183.
- Cockroaches—
and locusts of Indiana, Rec. VI, 440.
migration, Rec. VI, 1002.
notes, Rec. VIII, 612; X, 466; XI, 955.
remedies, Rec. IX, 65, 159, 463.
trap for, Rec. XII, 68.
- Cockscumb gall louse, Rec. II, 669.
- Cockspur—
notes, Rec. VII, 136.
grass, notes, Rec. X, 629.
thorn, notes, Rec. IV, 654.
- Coco grass—
notes, Rec. V, 161; VI, 823.
root system, Rec. IV, 46.
- Cocoa— (*See also* CACAO.)
adulteration, Rec. IV, 77; XI, 970.
analyses, Rec. IV, 77; XII, 377.
analysis, methods of, Rec. V, 127.
as food, Rec. VI, 573, 931; IX, 1078.
bean, theobromin in, Rec. IV, 613.
beans—
alkaloids of, determination, Rec. V, 817.
analyses, Rec. XI, 970, 1048.
apparatus for drying, Rec. VI, 216.
curing, Rec. IX, 129.
determination of quality, Rec. V, 1026.
- Cocoa—Continued.
butter—
detection in butter, Rec. XII, 108.
digestibility, Rec. IX, 263.
consumption, Rec. IV, 77.
digestibility, Rec. IX, 1078.
effect on digestion, Rec. VII, 971.
literature of investigations, Rec. IV, 77.
molasses, effect on milk production, Rec. X, 588.
preparation, Rec. IV, 77.
shells—
analyses, Rec. V, 410; XI, 873.
for steers, Rec. XII, 582.
utilization, Rec. X, 281.
treatise, Rec. XII, 853.
- Cocoonut—
and palms, food value of flour of, Rec. V, 732.
ash analyses, Rec. XII, 55.
cake—
analyses, Rec. VIII, 153; X, 276.
digestibility, Rec. IV, 87; X, 1083.
effect on milk, Rec. III, 67; V, 968.
effect on yield and composition of milk, Rec. X, 1083.
for cows, Rec. III, 67; XI, 1084.
composition, Rec. XII, 214.
fiber feed, analyses, Rec. XII, 282.
food value, Rec. XII, 78.
meal—
analyses, Rec. IV, 64; VIII, 714.
effect on butter, Rec. IV, 664; V, 724, 974; X, 686.
mealy wing, notes, Rec. V, 327.
milk, food value, Rec. XII, 78.
palms, insects affecting, Rec. III, 812; XI, 477; XII, 1067.
- Cocoonuts—
culture, Rec. VII, 405, 586; VIII, 230; XI, 745.
germination, Rec. VII, 872.
notes, Rec. VI, 636.
pigmy, Rec. V, 437.
- Cocoon of *Bombyx mori*, study, Rec. VII, 880.
- Cocoons—
jumping, Rec. VIII, 419.
of silkworm races, properties, Rec. XI, 173.
- Cocos nucifera*, notes, Rec. VIII, 230.
- Codex alimentarius austriacus, prospectus, Rec. VII, 616.
- Codfish—
analyses, Rec. X, 281.
bone, analyses, Rec. V, 621.
- Codling moth—
as affected by irrigation, Rec. IV, 666.
a nut feeder, Rec. VII, 699; VIII, 148, 418.
double brooded, Rec. VI, 739.
enemies, Rec. II, 81; X, 461, 563.
food plants, Rec. X, 460.
in Australia, Rec. VI, 236.
New Jersey, Rec. VI, 566.
Tasmania, Rec. VII, 881.
injury—
in Nebraska, Rec. IV, 668.
to apples, Bul. 2, II, 32; Rec. III, 600.

Codling moth—Continued.

insecticides for, **Bul. 2, I, 145; Bul. 2, II, 32; Rec. II, 49, 323, 408, 586, 599, 660, 718; V, 593; VI, 150, 1006.**

laws to repress, in Tasmania, **Rec. IV, 852.**

means of distribution, **Rec. XII, 665.**

methods of repression, **Bul. 2, II, 32.**

notes, **Bul. 2, I, 26; Bul. 2, II, 58, 118; Rec. I, 22, 45; II, 70, 81, 162, 318, 323, 651, 654, 659; III, 8, 46, 53, 54, 175, 176, 230, 298, 313, 792, 889; IV, 840; V, 64, 206, 310, 402, 498, 685; VI, 236, 314, 315, 316, 560, 566, 567, 654, 739, 900; VII, 42, 126, 143, 231, 316, 593; VIII, 68, 418, 611, 711, 908, 912, 998, 999, 1003; IX, 261, 371, 662, 856; X, 65, 164, 369, 458, 459, 463, 470, 562, 1042, 1076; XI, 66, 476, 565, 760, 765, 766, 955, 957, 1064; XII, 68, 265, 365, 468, 862, 869, 973.**

parasites, **Rec. V, 101.**

relation to apple rot, **Rec. IV, 660.**

remedies, **Bul. 2, I, 101; Rec. I, 11, 63, 138, 213, 294; II, 718; III, 600, 813, 864, 878, 889; IV, 417, 561, 566, 828; V, 101, 402; VI, 65, 150, 236; VII, 126, 224, 316, 879, 882; VIII, 61, 69, 412, 414, 1001; IX, 160, 256, 261, 262, 371, 1065; X, 296, 370, 371, 462, 464, 558, 563, 661, 765, 1042; XI, 370, 371, 558, 765; XII, 64, 66, 156, 267, 1065.**

spraying experiments, **Rec. VII, 882; IX, 256, 460; X, 462, 464; XI, 258, 265.**

spring migration, **Rec. XII, 861.**

trapping, **Bul. 2, II, 33; Rec. VII, 698; VIII, 1002.**

Cod-liver oil—

as food, **Rec. VII, 701.**

for calves, **Rec. XII, 668.**

Coefficient of oxidation of nitrogenous material, **Rec. X, 81.**

Colinus neromyza, on wheat bulb worm, **Rec. III, 223.**

Calocnemis californicus, notes, **Rec. III, 812.**

Calodasyus unicornis, notes, **Rec. II, 482; V, 101.**

Calostoma immane, notes **Rec. XI, 958.**

Cænurus cerebialis, **Rec. IX, 274; XII, 294.**

Cœur d'Alene Mountains, botanical survey, **Rec. IX, 327.**

Coffee—

arabica, notes, **Rec. V, 626.**

liberica, notes, **Rec. V, 626.**

Coffee—

adulteration, **Rec. IV, 77; VI, 331; X, 1089; XI, 278, 970, 971; XII, 612.**

analyses, **Rec. III, 362; IV, 77; VII, 708; X, 281; XI, 744, 769; XII, 279, 280.**

and coffee—

adulterants, **Rec. X, 80.**

plantations, **Rec. VII, 616.**

and tea—

decoctions, effect on artificial digestion, **Rec. V, 259.**

methods of analysis, **Rec. III, 925.**

as a food protector, **Rec. XI, 970.**

bark louse, **Rec. XI, 1065.**

bean—

carbohydrates, **Rec. V, 258, 660.**

husk, analyses, **Rec. V, 194; XI, 971.**

weevil, notes, **Rec. IX, 854.**

Coffee—Continued.

beans—

changes in, during roasting, **Rec. IX, 87.**
detection of artificial coloring, **Rec. IX, 1024.**

Kentucky, analyses, **Rec. XI, 1008.**

berry—

analyses, **Rec. V, 820.**

"domestic," **Rec. IV, 495.**

borer—

notes, **Rec. VIII, 996.**

remedies, **Rec. XII, 775.**

studies, **Rec. VII, 146.**

Cephaleuros coffæ on, **Rec. VII, 410.**

compounds, analyses, **Rec. XI, 769.**

consumption, **Rec. IV, 77.**

culture, **Rec. VIII, 46, 300, 686; IX, 45; XII, 55.**
culture—

in Africa, **Rec. VI, 44, 898.**

Angola, **Rec. VI, 44.**

Brazil, **Rec. III, 362; XII, 55.**

Costa Rica, **Rec. XII, 953.**

Hawaiian Islands, **Rec. IX, 839.**

Honduras, **Rec. VI, 216.**

Mexico, **Rec. X, 749; XII, 246.**

Paraguay, **Rec. XI, 240.**

Porto Rico, **Rec. XI, 144.**

Queensland, **Rec. XI, 144, 744; XII, 246, 1045.**

manual, **Rec. XI, 352.**

dato stone, analyses, **Rec. X, 281.**

decoction, effect on artificial digestion, **Rec. V, 536.**

detection of artificially colored, **Rec. X, 80.**

determination of—

caffein in, **Rec. IX, 420.**

tannic acid, **Rec. X, 80.**

disease—

and nitrogen hunger, **Rec. XI, 1061.**

in Central America, **Rec. X, 560.**

Nicaragua, **Rec. XI, 362.**

the Philippine Islands, **Rec. V, 1031.**

diseases, **Rec. VII, 695; XI, 261, 469, 1060, 1065; XII, 55, 573.**

effect on digestion, **Rec. VII, 971.**

examination, **Rec. VI, 190; VII, 599.**

fat, sugar, and tannin in, **Rec. VII, 616.**

fertilizing constituents, **Rec. VII, 803.**

food constituents, **Rec. VII, 803.**

grafting, **Rec. XI, 548; XII, 147.**

growing and preparation for market, **Rec. V, 626.**

hybrid, **Rec. XI, 240, 449.**

hybridization, **Rec. XI, 452.**

insect and fungus enemies, **Rec. IX, 1061; X, 653.**

insects—

affecting, **Rec. VIII, 807; XI, 1060, 1065; XII, 55.**

affecting, in Porto Rico, **Rec. XII, 162.**

of Hawaii, **Rec. VI, 440.**

investigations, literature, **Rec. IV, 77.**

leaf disease—

notes, **Rec. VIII, 996; IX, 659.**

prevention, **Rec. V, 821; XI, 1060.**

leaf miner, **Rec. V, 1031.**

leaf rot, treatment, **Rec. XI, 1060.**

Coffee—Continued.

- Liberian, Rec. V, 925; VI, 216; XII, 1045.
 locust, notes, Rec. XII, 465.
 manuring, Rec. XII, 854.
 methods of analysis, Rec. IV, 77; V, 127.
 mildew, notes, Rec. VIII, 996.
 nematode disease, notes, Rec. VIII, 996.
 new alkaloid in, Rec. VI, 190.
 new leaf disease, Rec. X, 59.
 parasites, treatment, Rec. X, 653, 864; XII, 360.
 pea, Idaho, analyses, Rec. X, 275.
 poisoning by, Rec. VII, 616.
 preparation, Rec. IV, 77.
 root rot, treatment, Rec. X, 456.
 roots, nematodes, Rec. X, 366; XI, 262.
 scale—
 notes, Rec. IX, 776.
 insects affecting, remedies, Rec. XII, 369.
 seedlings, leaf disease, Rec. VII, 39.
 shade trees for, Rec. XI, 744.
 substitutes, analyses, Rec. VII, 599, 708; XI, 769; XII, 279, 586, 898.
 tannin in, Rec. VII, 616.
 tree—
 analyses, Rec. V, 820.
 fertilizer requirements, Rec. V, 820.
 Kentucky, notes, Rec. III, 522; IV, 654; X, 516.
 trees—
 nursery management, Rec. XI, 1048.
 peaberries on, Rec. XI, 744.
 pruning, Rec. XI, 51, 851.
 use, Rec. XII, 854.

Coffee and caffeine-free coffee surrogates, studies, Rec. X, 281.

Cohesion of soils, Rec. IV, 529.

Coix lachryma—

- analyses, Rec. VIII, 520.
 notes, Rec. III, 18.

Coke—

- analyses, Rec. XI, 314.
 screenings for violet damping, Rec. VII, 695.

Cola, soluble starch in, Rec. IX, 329.

Colaspidea atrum, notes, Rec. VIII, 1002.*Colaspis brunnea*, notes, Rec. II, 405; X, 61; XI, 953.*Colaspis*, grapevine, Rec. X, 61.*Colchicum autumnale*, notes, Rec. V, 973.*Colchicum*, destruction, Rec. VII, 511; VIII, 233.

Cold—

- days, occurrence, Rec. VI, 789.
 effect on—
 animalcules, worms and insects, Rec. IX, 423.
 growth of trees, Rec. VI, 781, 786.
 insect life, Rec. VIII, 419.
 plants, Rec. VI, 777.
 secretion of urine, Rec. IX, 1080.
 seeds, Rec. VIII, 986.
 for producing aberrations, Rec. IX, 965.
 Friday, date, Rec. XI, 819.
 influence on pyrocyanogenic bacteria, Rec. V, 729.
 saponification, Rec. VII, 830.
 spell of November 16-30, 1896, in the North-west, Rec. VIII, 676.

Cold—Continued.

storage—

- cellar, Rec. X, 194.
 for eggs, Rec. XI, 482; XII, 780.
 farm products, Rec. IX, 295.
 fruits, Rec. V, 909; VII, 308, 504, 505; XI, 349, 350; XII, 798.
 grain and meat, Rec. III, 928.
 onions, Rec. XI, 153.
 houses, construction, Rec. IX, 295.
 methods, Rec. X, 599, 639.
 on the farm, Rec. XII, 798.
 summer of 1816, Rec. VII, 845.
 waves—
 in the Southwest, Rec. XI, 620.
 of atmosphere, depth, Rec. XI, 222.
 January and February, 1864, Rec. XII, 119.
 origin, Rec. II, 511; III, 93; VI, 976.

Coleanthus subtilis, notes, Rec. IV, 951.*Coleophora*—

- fletcherella*, notes, Rec. VI, 1008; VII, 227, 593, 968; VIII, 611, 906; IX, 856; X, 165.
laricella on larches, Rec. IV, 285.
lutipennella, notes, Rec. XI, 766.
malivorella, notes, Rec. VII, 611; IX, 257, 367, 575.
 n. sp., notes, Rec. IV, 437.
nigricella, notes, Rec. XI, 765.
 sp., notes, Rec. X, 871.
stefanii, notes, Rec. XII, 69.

Coleoptera—

- found with ants, Rec. VII, 792.
 hymenopterous parasites, Rec. IV, 851.
 injurious, treatise, Rec. XII, 868.
 literature in nineteenth century, Rec. XII, 972.
 new species, Rec. X, 769.
 notes, Rec. XI, 370.
 of Australia—
 catalogue, Rec. VIII, 808.
 new genera and species, Rec. X, 872.
 notes, Rec. VII, 880.
 of California, Rec. III, 812; IV, 373.
 Canada, notes, Rec. VI, 1008; VIII, 910, 1002; IX, 372, 1070.
 Japan, catalogue, Rec. IX, 574.
 lower Rio Grande Valley, Rec. IX, 861.
 New Mexico, notes, Rec. IV, 373.
 Northeastern America, handbook; Rec. VIII, 808, 913; IX, 574.
 North America, northern Asia, and Europe, catalogue, Rec. VII, 44.
 southwestern Pennsylvania, Rec. VII, 596.
 the Pacific coast, food plants, Rec. IV, 373.
 reared, notes, Rec. V, 1037.
 species affecting useful plants, Rec. X, 61.
 zonal distribution, Rec. XI, 956.

Coleoptera—

- longicorn, of the West Indies, Rec. VII, 792.
 n. sp., notes, Rec. VII, 146.
 sp., notes, Rec. VI, 64.

Coleosanthus desertorum, notes, Rec. VI, 114.*Coleosporium* affecting pines, Rec. X, 969.*Coleosporium*—

- cacaliae*, notes, Rec. VII, 466, 787.
campanulae, notes, Rec. VII, 466, 787.

Coleosporium—Continued.*euphrasie*, notes, Rec. VII, 787.*inulæ*, notes, Rec. VII, 466.*melampyri*, notes, Rec. VII, 787.*petasitis*, notes, Rec. VII, 466, 787.*pini*—

as a cause of pine rust, Rec. VIII, 797.

notes, Rec. III, 327.

senecionis, notes, Rec. VII, 466, 787; XII, 254.*solidaginis*, notes, Rec. IV, 50.*sonchi*, notes, Rec. IV, 50; VII, 787.*sonchi-arvensis*, notes, Rec. VII, 216, 466; IX, 657.*spp.*, in Ohio, Rec. IV, 414.*sp.*, on China asters, Rec. X, 447.*subalpinum*, notes, Rec. VII, 787.*tussilaginis*, notes, Rec. VII, 466, 787.*Coleothrips*, notes, Rec. IX, 262.*Coleothrips 3-fasciata*, notes, Rec. II, 482; V, 311, 791; X, 168.*Coleroa sacchari*, notes, Rec. VIII, 237.*Coleus*—

nematodes on, Rec. III, 308.

varieties, Rec. XI, 644.

Coli—

bacilli, effect on growth of typhus bacilli, Rec. XI, 393.

bacillus—

and bacillus of Eberth, differentiation, Rec. XI, 892.

pathogenic action, Rec. XII, 193.

Colias—*cæscnia*, notes, Rec. IX, 670.*edusa*, notes, Rec. XII, 1068.*eurytheme*, notes, Rec. XII, 365.*hyala*, notes, Rec. XII, 1068.*interior*, notes, Rec. IX, 966.*philodice*, notes, Rec. VI, 649.*sp.*, notes, Rec. III, 318.*Colic*—

barium chlorid for, Rec. VII, 712.

in animals, treatment, Rec. X, 693.

in horses—

and mules, Rec. IV, 75; V, 78.

notes, Bul. 2, II, 119; V, 995; XI, 394.

treatment, Rec. II, 727; VIII, 84; XI, 191.

Collar rot, notes, Rec. XII, 463, 655.

Collar worm, notes, Rec. V, 629.

Collards—

culture, Rec. IX, 357.

transplanting, effect on time of maturity, Rec. XII, 50.

varieties, Rec. VIII, 977.

College work, waste, Rec. II, 268.

Colleges—

and schools—

of agriculture in Belgium, Rec. IV, 702.

agricultural, in United States, Rec. V, 1006.

and stations, teachers and investigators in, Rec. V, 274.

horticulture in, Rec. VIII, 792.

preparatory work in, Rec. IX, 316.

Colletes compacta, notes, Rec. X, 469.*Colletotrichum*—*althææ*, notes, Rec. II, 303; III, 307; X, 455.*antirrhini*, n. sp., notes, Rec. XII, 934, 1055.*Colletotrichum*—Continued.*camelliæ*, notes, Rec. XI, 948.*falcatum*, notes, Rec. VI, 432; VII, 410; VIII, 237, 499; X, 57, 971.*glæosporioides*, notes, Rec. XII, 463.*gossypii*, notes, Rec. III, 7; IV, 533.

(See also COTTON ANTHRACNOSE.)

lagenarium, notes, Rec. IX, 251, 324, 1061; X, 362; XII, 254.

(See also WATERMELON ANTHRACNOSE.)

lindemuthianum, notes, Rec. IV, 557; V, 629;

VI, 558, 997; X, 451; XI, 254.

(See also BEAN ANTHRACNOSE.)

lycopersici, notes, Rec. V, 591, 788.*malvarum*. (See COLLETOTRICHUM ALTHÆÆ.)*nigrum*, notes, Rec. III, 807; XII, 566.*oligochætum*, notes, Rec. VI, 909.*omnivorum*, notes, Rec. IV, 53.*spinaceæ*, notes, Rec. II, 242.*sp.*, as a cause of palm-leaf blight, Rec. X, 456.*sp.*, on carnations, notes, Rec. IV, 54.*sp.*, on violets, notes, Rec. IV, 54.*spp.*, notes, Rec. V, 400, 401.*violæ-tricoloris*—

n. sp., notes, Rec. XI, 257.

treatment, Rec. XI, 553.

Colloidal silver—

administration, Rec. XII, 790.

as an antiseptic, Rec. XII, 194.

intravenous injection, Rec. XII, 890.

Colloids, water in, Rec. VIII, 667.

Collops—

bipunctatus—

affecting potato beetle, Rec. XI, 767.

notes, Rec. XI, 580.

nigriceps, notes, Rec. I, 13.

Colocasia—

antiquorum, analyses, Rec. XII, 1076.*antiquorum esculenta*, notes, Rec. III, 444; VIII, 128.

Colocynth, notes, Rec. VII, 124.

Colon bacilli in oysters, Rec. XI, 427.

Colopha—*rossica*, notes, Rec. IX, 575.*ulmicola*, notes, Rec. II, 669; XI, 952.*Colopodium pendulinum*, notes, Rec. IV, 951.

Color—

and color patterns of moths and butterflies, Rec. VIII, 910.

determination in potable water, Rec. VIII, 286.

forming micrococcus of red milk, Rec. VIII, 933.

in plants, meaning, Rec. VIII, 867.

tanning materials, Rec. VII, 257.

of barley for brewing, Rec. IV, 222.

flowers, changes, Rec. X, 440.

horses, influence of heredity, Rec. IX, 593.

insects, investigation, Rec. IV, 518.

milk, cause, Rec. IV, 316; V, 950.

reactions, study of, Rec. IV, 871.

Colorado, agricultural laws, Rec. VII, 340.

Colorado grass, notes, Rec. X, 147, 343.

Colorado River water—

analyses, Rec. III, 846.

sediment from, Rec. III, 846.

- Coloring material of fungi, **Rec. X**, 23.
- Coloring matter—
 artificial organic, detection, **Rec. XI**, 1007.
 effect on digestive ferments, **Rec. IX**, 783.
 in black and red currants, **Rec. III**, 555.
 confections, **Rec. III**, 814; **X**, 181.
 grapes, source and nature, **Rec. III**, 923.
 sausage, detection, **Rec. IX**, 420.
 wines, **Rec. VIII**, 563.
 of *Micrococcus prodigiosus*, **Rec. IV**, 222.
 pollen, **Rec. IV**, 448.
- Coloring matters—
 analysis, **Rec. X**, 821.
 detection in—
 milk, **Rec. XII**, 387.
 spirits, **Rec. XII**, 823.
 yellow, in foods, detection, **Rec. IV**, 316.
- Coloring reagents, use with microscope, **Rec. XI**, 1016.
- Colors—
 floral, laws of, **Rec. VI**, 993.
 in leaves and flowers, **Rec. VIII**, 380.
 preservation in museum specimens, **Rec. VIII**, 473.
 unnatural, in foliage, **Rec. VIII**, 380.
- Colostrum—
 analyses, **Rec. IV**, 488, 519; **V**, 962; **VI**, 335, 668; **IX**, 1086; **X**, 382.
 churning, **Rec. IV**, 488; **V**, 962.
 creaming, **Rec. IV**, 488; **V**, 962.
 digestibility, **Rec. V**, 957.
 of cow affected with fever, composition, **Rec. IV**, 487.
 goats, composition, **Rec. X**, 383.
 studies, **Rec. VI**, 343, 666; **IX**, 1085; **X**, 1096; **XII**, 386.
- Colts—
 distemper, **Rec. III**, 807.
 feeding experiments, **Bul. 2**, I, 66; **Rec. III**, 391; **IV**, 424, 574; **V**, 201.
- Columbia cured feed for horses and cattle, analyses, **Rec. I**, 15.
- Columbine—
 borer, remedies, **Rec. IX**, 260.
 leaf miner, notes, **Rec. VII**, 229.
 notes, **Rec. IV**, 653.
- Colydiidæ, monograph, **Rec. XI**, 562.
- Colza—
 cake, comparative analyses, **Rec. V**, 914.
 culture experiments, **Rec. X**, 433.
 oil, composition, **Rec. VI**, 15.
- Comb honey, production, **Rec. XI**, 271.
- Combustion—
 heats, **Rec. III**, 924; **XII**, 612.
 in air, secondary nitrogen compounds formed during, **Rec. V**, 1026.
- Comfrey, notes, **Rec. IX**, 956.
- Comma butterfly, notes, **Rec. IV**, 838; **IX**, 668.
- Commerce—
 between Mexico and the United States, **Rec. VI**, 347.
 international agricultural, contributions, **Rec. II**, 609.
 of Hawaii, statistics, **Rec. IX**, 397.
 Spain, statistics, **Rec. X**, 98, 99.
- Commercial products, examination, **Rec. XII**, 214.
- Compass plants, notes, **Rec. VIII**, 234.
- Completoia complens*, notes, **Rec. VI**, 436.
- Compositæ—
 anatomy of woody and succulent, **Rec. V**, 923.
 fecundation, **Rec. X**, 417.
 subterranean organs, **Rec. XI**, 121.
- Composite sample at creameries, **Rec. V**, 1001.
- Compost—
 as a fertilizer, **Rec. IV**, 248.
 fertilizers, value, **Rec. XI**, 157.
 for corn, **Rec. V**, 1071.
 cotton, **Bul. 2**, II, 156; **Rec. III**, 315.
 utilization, **Rec. VIII**, 408.
- Composting, effect on phosphates, **Rec. VIII**, 483.
- Composts—
 analyses, **Bul. 2**, I, 173; **Rec. III**, 6; **VII**, 295; **IX**, 939; **XII**, 933.
 preparation, **Rec. III**, 146.
- Compound—
 cakes, analyses, **Rec. XI**, 971.
 ovary, significance, **Rec. VIII**, 204.
- Compsomyia, bibliography, **Rec. XII**, 867.
- Compsomyia (Lucilia) macellaria*, notes, **Rec. XI**, 272.
- Concentrated—
 Egg Producer, analyses, **Rec. I**, 15.
 feed for live stock, analyses, **Rec. I**, 15.
 Flower Food, analyses, **Rec. III**, 162.
- Conch pea, culture experiments, **Rec. V**, 176.
- Concho grass. (*See* COLORADO GRASS.)
- Conchylis*. (*See* TORTRIX.)
- Condensed milk. (*See* MILK, CONDENSED.)
- Condenser—
 for extraction, **Rec. X**, 820.
 new, description, **Rec. VIII**, 202.
 Soxhlet reflux, **Rec. XI**, 814.
- Condensers, reflux, **Rec. IX**, 918; **X**, 118; **XI**, 313.
- Condimental feeding stuffs, analyses, **Rec. I**, 282; **XII**, 71, 171, 378.
 (*See also* FEEDING STUFFS, CONDIMENTAL.)
- Condiments—
 adulteration, **Rec. IX**, 982.
 analyses, **Rec. X**, 281.
 determination of cellulose in, **Rec. VIII**, 197.
 examination, **Rec. XII**, 214.
 preservation, **Rec. VIII**, 155.
 use and abuse, **Rec. VII**, 804.
- Condition powder, effect on egg production, **Rec. IX**, 376.
- Condylura cristata*, notes, **Rec. X**, 25, 323.
- Cone—
 flower, root system, **Rec. IV**, 46.
 nose, blood sucking, **Rec. IX**, 62, 254.
- Confections—
 adulteration, **Rec. III**, 814.
 analyses, **Rec. III**, 814; **VI**, 274; **X**, 281.
 coloring matters, **Rec. III**, 814, **X**, 181.
 determination of sugar in, **Rec. VII**, 556.
- Confectionery, manufacture, **Rec. XI**, 278.
- Congestion—
 of the kidneys in lambs, notes, **Rec. XII**, 685.
 the lungs in poultry, treatment, **Rec. XII**, 1092.
- Conglomerates, analyses, **Rec. X**, 716.
- Conglutin, chemistry, **Rec. VIII**, 373.

Congress—

and irrigation, Rec. XI, 195.
for wine culture at Heilbronn, meeting, Rec. VIII, 496.

Conidia formation—

as affected by inorganic salts, Rec. XI, 424; XII, 422.
in *Aspergillus niger*, Rec. XI, 710; XII, 422.
Dematium pullulans, Rec. XII, 912.
fungi, Rec. XI, 710.

Conifer—

root rot, notes, Rec. XII, 573.
seed—
 proteids, cleavage products, Rec. X, 313.
 studies, Rec. XI, 355.
seeds, histidin and lysin in, Rec. XI, 1056.

Conifers—

abnormal resin ducts, Rec. VIII, 205.
American, notes, Rec. IX, 651.
artificial pollination, Rec. IX, 922.
as affected by lime and magnesia, Rec. VII, 869.
at Kansas Agricultural College, Rec. VIII, 314, 605.
 Murthly Castle, Scotland, Rec. XII, 560.
caterpillars on, Rec. VII, 793.
Chinese, Rec. X, 53.
cones, morphology, Rec. VIII, 471.
cultivated, Rec. IX, 452, 563.
diameter increment as affected by climate, Rec. XI, 515.
diseased resin ducts, Rec. VIII, 380.
diseases, Rec. VI, 557; VII, 875; X, 1057; XII, 656.
European, notes, Rec. VII, 961.
fertilization and embryogeny, Rec. VIII, 566.
formation of resin ducts, Rec. VIII, 471.
germinating, changes in protein, Rec. VIII, 670.
grafting, Rec. VII, 869.
growth—
 and development, Rec. XII, 455.
 as affected by gases and smoke, Rec. VIII, 794.
 affected by light and removal of dead timber, Rec. IX, 53.
 of leaves, Rec. IV, 522; IX, 526.
hardy, Rec. VIII, 605.
hardy, in Europe, Rec. IX, 452.
infection by *Cenangium abietis*, Rec. VII, 513.
insects affecting, Rec. VII, 882.
Japanese, notes, Rec. X, 53.
mineral food, Rec. VIII, 831.
notes, Rec. II, 143; IX, 651.
North American, in Germany, Rec. VIII, 136.
occurrence of root suckers, Rec. XI, 940.
of Canada, Rec. XII, 562.
 China, Rec. X, 53, 358.
 Holland, Rec. XII, 562.
 Japan, Rec. X, 53.
 North America, notes, Rec. VII, 775, 960; VIII, 136, 671; XII, 562.
 Scandinavia, Rec. IV, 693.
 the Pacific coast, Rec. IX, 844.
 Western America, Rec. VI, 301; IX, 52.
ornamental—

 disease, Rec. XI, 949.
 propagation, Rec. VI, 426.

Conifers—Continued.

 parasites, Rec. IX, 757.
 plant lice on, Rec. X, 374.
 resin in, Rec. V, 347.
 Rocky Mountain, Rec. VI, 993.
 transpiration, Rec. XI, 116.
 transplanting, Rec. V, 347.
 trichomes, Rec. VII, 839.
 varieties, Rec. III, 246.

Coniosporium maydis, notes, Rec. VII, 838.

Coniothecium scabrum, n. sp., notes, Rec. XII, 655.

Coniothyrium—

diplodiella, notes, Rec. XII, 571.
 melasporum on sugar cane, Rec. VII, 311.
 musculorum, notes, Rec. IV, 956.

Conium maculatum—

 notes, Rec. VII, 779; VIII, 234; X, 516.
 poisonous to cattle, Rec. XI, 796.

Conjunctiva, absorption of virus, Rec. XI, 697.

Conjunctivitis—

 diphtheritic, of turkeys and chickens, Rec. V, 7.
 treatment with protargol, Rec. XI, 496.

Conn culture (B41) in butter making, Rec. VIII, 261.

Connecticut sanitary laws, new, Rec. V, 1041.

Conocephalus sp., on cranberry bogs, Rec. IV, 565.

Conogethes punctiferalis, notes, Rec. IX, 262.

Conophallus konyaku, mannane in, Rec. VII, 462.

Conopholis americana, notes, Rec. II, 22; XI, 817.

Conorhinus bite, Rec. VI, 441.

Conorhinus sanguisuga, notes, Rec. VIII, 70; IX, 62, 254; XII, 664.

Conotrachelus—

cratagi, notes, Rec. III, 313; V, 402; X, 565.
 leucophæatus, notes, Rec. I, 13.
 nemuphar. (See PLUM CURCULIO.)
 posticatus, notes, Rec. X, 63.

Conringia orientalis, notes, Rec. IX, 454, 653.

Constant level apparatus, Rec. VIII, 26.

Consular reports, Rec. V, 1088; VI, 87, 172; VII, 340, 433.

Contagion transmitted by insects, Rec. IV, 669.

Convallaria majalis, notes, Rec. IV, 653; X, 516.

Convict labor on public roads, Rec. V, 1007; VI, 943; VII, 258; X, 196.

Convolvulus—

arvensis—
 notes, Rec. III, 598; V, 617; IX, 453; XI, 651; XII, 420.
 root system, Rec. IV, 45.

californicus, notes, Rec. III, 598.

sepium—

 notes, Rec. X, 1048.
 root system, Rec. IV, 45.

Cooked feed, analysis, Rec. V, 499.

Cookery, standard, book, Rec. XI, 380.

Cooking—

 and dietetics, Rec. VII, 891.
 as affected by diminished pressure, Rec. XII, 521.
 experiments with meat, Rec. X, 73.
 in the public schools of New York City, Rec. XI, 79.
 of food, suggestions, Rec. VI, 331.
 soda, analyses, Rec. VII, 294.
 text-book, Rec. VII, 890.
 thermometer, Rec. VII, 794.

Cooler, new form, Rec. VII, 921; VIII, 26.

Coolers, milk, tests, **Rec. IV**, 364; **V**, 1054; **VI**, 754
 Coontie, analyses, **Rec. IX**, 225.
 Cooper's hawk, notes, **Rec. VI**, 694.
 Copenhagen, Denmark—
 Experiment Station, **Rec. IX**, 717.
 Royal Veterinary and Agricultural College,
 Rec. IX, 709.
 Seed Control Station, report, **Rec. V**, 438; **IX**,
 55, 454; **X**, 53; **XI**, 55; **XII**, 251, 252.
Copidosoma—
 turni, notes **Rec. II**, 116.
 variegatum, notes, **Rec. IV**, 417.
 Copper—
 absorption and excretion by animals, **Rec.**
 X, 81
 and arsenic solution, preparation and use,
 Rec. IV, 927.
 and iron—
 sulphate for peach brown rust, **Rec. VIII**,
 141.
 vessels for laboratory use, **Rec. IV**, 613.
 as related to health, **Rec. V**, 252.
 compounds—
 accumulation in the soil, **Rec. VII**, 99, 189,
 486.
 as fungicides, **Rec. VII**, 225, 271.
 content of soil and cane in its relation to dis-
 ease, **Rec. VI**, 312.
 detection by formaldoxin, **Rec. X**, 821.
 determination, **Rec. IX**, 420; **X**, 514.
 effect on—
 animal organism, **Rec. VII**, 336; **X**, 81.
 germination of *Cercospora apii*, **Rec. IV**,
 53.
 germination of *Monilia fructigena*, **Rec.**
 IV, 53.
 grapes, **Rec. IV**, 872, 968.
 man, **Rec. IX**, 982.
 plants, **Rec. X**, 611; **XI**, 1028; **XII**, 519.
 potato plant, **Rec. V**, 732, 819.
 ripening of currants, **Rec. XII**, 1045.
 ripening of grape wood, **Rec. VII**, 964;
 VIII, 55.
 fungicide—
 containing potassium permanganate,
 Rec. XI, 166.
 new, **Rec. X**, 156.
 new, for grape black rot, **Rec. X**, 762.
 fungicides—
 adhesiveness, **Rec. X**, 651, 1061; **XI**, 168.
 and soap mixtures, combination, **Rec.**
 XI, 1060.
 chemistry, **Rec. VI**, 56; **VII**, 592
 effect on quality of wine, **Rec. XII**, 574.
 for potatoes, **Rec. X**, 762.
 injurious effects, **Rec. XII**, 464, 1057.
 preparation, **Rec. VI**, 647; **VIII**, 996; **XI**,
 60.
 use in forest protection, **Rec. X**, 366.
 variation in composition, **Rec. XI**, 168.
 in articles of food, **Rec. II**, 324; **VII**, 425.
 canned peas, **Rec. X**, 20.
 canned vegetables, **Rec. V**, 220.
 celery, sprayed, **Rec. IV**, 926.
 chick-pea, **Rec. III**, 925.
 German iris, **Rec. III**, 925.

Copper—Continued.

 in grapes, **Rec. III**, 690, 789; **IV**, 55, 242.
 organic substances, **Rec. VII**, 364.
 parts of the grapevine, **Rec. IV**, 872.
 plants, **Rec. X**, 825; **XI**, 24, 1002.
 plants, determination, **Rec. VIII**, 105.
 potato plants, **Rec. V**, 926.
 products of sugar manufacture, **Rec. V**,
 130.
 skins and stems of pears from sprayed
 trees, **Rec. V**, 986.
 vegetable substances, determination, **Rec.**
 X, 20.
 vegetables, **Rec. VIII**, 107.
 wines, **Rec. II**, 32.
 insolubility in soap mixtures, **Rec. IX**, 457.
 mixtures for rose chafer, **Rec. III**, 171.
 on grape leaves, poisoning by, **Rec. IV**, 223.
 sprayed fruits, **Rec. III**, 865.
 ore, analyses, **Rec. X**, 194.
 question, history and physiology, **Rec. VI**, 148.
 salts—
 for grape black rot, **Rec. II**, 267; **VII**, 312;
 VIII, 41.
 grape downy mildew, **Rec. V**, 257.
 grape diseases, **Rec. VII**, 695, 876.
 preserving railroad ties, **Rec. XI**, 1052.
 methods of analysis, **Rec. VII**, 185.
 solutions—
 action of plant roots toward, **Rec. V**, 649.
 alkaline, for determining reducing sugars,
 Rec. IV, 983; **VI**, 111.
 as fungicides, **Rec. II**, 12, 33, 134, 293, 328,
 408, 609, 633, 713.
 effect on plants, **Rec. VI**, 872.
 effect on tomatoes, **Rec. IX**, 569.
 for determination of sugars, **Rec. VII**, 72,
 185, 271, 272, 365, 558, 738, 739; **VIII**, 285;
 IX, 225.
 for grape black rot, **Rec. V**, 257.
 taking up and storing by roots of plants, **Rec.**
 V, 729.
 taking up from soil by vegetables, **Rec. VIII**,
 566.
 transmission from food to milk, **Rec. XI**, 587.
 volumetric determination, **Rec. X**, 514.
 Copper acetate—
 as a fungicide, **Rec. XII**, 274.
 effect on germination, **Rec. V**, 882.
 for grape downy mildew, **Rec. IX**, 458; **XI**,
 256.
 Lima bean mildew, **Rec. V**, 878.
 peach blight and rot, **Rec. VII**, 786; **IX**,
 147.
 potato blight and rot, **Rec. IV**, 928.
 quince leaf spot, **Rec. IV**, 929.
 stinking smut of wheat, **Rec. III**, 226.
 tomato downy mildew, **Rec. XI**, 259.
 Copper borate—
 for bean anthracnose, **Rec. IV**, 559.
 grain rusts, **Rec. IV**, 955.
 preparation and use, **Rec. III**, 525.
 with Paris green, **Rec. III**, 525.
 Copper carbonate—
 ammoniacal—
 as a fungicide, **Rec. V**, 62, 309, 400, 401;
 VI, 307.

Copper carbonate—Continued,
ammoniacal—continued.

- experiments with, Rec. III, 197, 864.
- for almond diseases, Rec. IV, 955.
- apple rust, Rec. III, 217.
- apple scab, Rec. II, 408, 633; III, 620, 892; IV, 170, 561, 926; V, 64.
- bean anthracnose, Rec. IV, 52, 558.
- varietal rust, Rec. VIII, 936.
- celery blight, Rec. III, 884; IX, 359, 458.
- celery diseases, Rec. IV, 929; VIII, 800.
- celery rust, Rec. VIII, 608.
- cherry, plum, and quince leaf spot, Rec. III, 10, 217; IV, 169; VII, 787.
- cherry powdery mildew, Rec. IV, 169.
- corn and oat smut, Rec. III, 787; V, 59.
- cucumber powdery mildew, Rec. III, 211.
- currant powdery mildew, Rec. IV, 169.
- currant spot disease, Rec. III, 217; IV, 169; V, 59.
- grain rusts, Rec. IV, 955.
- grape anthracnose, Rec. III, 10.
- grape black rot, Rec. II, 633, 713; III, 10; IV, 168.
- grape diseases, Rec. IV, 729.
- grape mildew, Rec. IV, 652.
- leaf diseases of nursery stock, Rec. IV, 955.
- peach rot, Rec. IV, 169, 835.
- pear leaf blight, Rec. III, 144; IV, 170, 500; V, 60.
- pear scab, Rec. III, 892; V, 64.
- potato blight, Rec. II, 293, 633; III, 10; IV, 55, 250.
- potato rot, Rec. V, 307.
- potato scab, Rec. IV, 560.
- quince diseases, Rec. IV, 658.
- rose mildew, Rec. VIII, 996.
- strawberry rust, Rec. III, 10.
- tomato blight, Rec. V, 790.
- tomato diseases, Rec. III, 92.
- wheat rust, Rec. III, 788.
- preparation and use, Rec. II, 12, 143, 328, 408, 609; III, 11, 23, 847; IV, 43, 169, 659, 838, 927; V, 206, 542, 629, 1077; VI, 832; VII, 140, 234; VIII, 54, 240, 498; X, 60; XI, 861.
- with Climax Insect Poison, Rec. III, 368.
- kerosene emulsion for apples, Rec. VI, 42.
- London purple, Rec. III, 525.
- Paris green, Rec. III, 96, 525.
- Paris green for apples, Rec. IV, 19.
- Paris green and London purple, Rec. II, 217.
- analyses, Rec. IV, 56.
- for oat and wheat rust, Rec. VI, 435.
- Johnson's mixture—
 - for apple scab, Rec. IV, 170.
 - grape black rot, Rec. IV, 168.
 - pear leaf blight, Rec. IV, 168.
- precipitated—
 - as a fungicide, Rec. II, 713.
 - for apple scab, Rec. III, 620.
 - pear leaf blight, Rec. III, 144.
 - quince leaf spot, Rec. III, 770.
 - raspberry anthracnose, Rec. IV, 54.

Copper carbonate—Continued.

- precipitated—continued.
- preparation, Rec. V, 593.
- with Paris green for apples, Rec. IV, 42.
- suspended—
 - for apple scab, Rec. IV, 561.
 - grape black rot, Rec. IV, 168.
 - peach rot, Rec. IV, 835.
 - pear leaf blight, Rec. IV, 168.
 - preparation, Rec. V, 592.
- Copper chloride—
 - effect on germination of seeds, Rec. V, 882.
 - for potato rot, Rec. V, 307.
 - stinking smut of wheat, Rec. III, 226, 286.
 - preparation and use, Rec. III, 525; V, 684.
 - with Paris green, Rec. III, 525.
- Copper ferrocyanid for grain rusts, Rec. IV, 955.
- Copper gypsum, for grape mildew, Rec. II, 303.
- Copper hydrate—
 - preparation and use, Rec. III, 525.
 - with Paris green, Rec. III, 525.
- Copper hydroxid for grain rusts, Rec. IV, 955.
- Copper lime succate for grape leaf diseases, Rec. IX, 660.
- Copper soda—
 - for grape mildew, Rec. II, 303.
- hyposulphite—
 - for grape black rot, Rec. IV, 168.
 - pear leaf blight, Rec. IV, 168.
 - preparation, Rec. V, 592.
- mixture—
 - for potato rot, Rec. V, 307.
 - preparation, Rec. V, 592.
 - solution, preparation, Rec. IV, 838.
- Copper stentite for potato rot, Rec. IV, 864, 971.
- Copper succate—
 - for grape mildew, Rec. IX, 765.
 - pear scab, Rec. IV, 500.
- Copper sulphate—(See also BLUE VERMION.)
 - ammoniacal—
 - for quince leaf spot, Rec. IV, 929.
 - potato blight and rot, Rec. IV, 928.
 - analyses, Rec. IV, 56.
 - and Bordeaux mixture for plum brown rot, Rec. IX, 647.
 - kerosene combined, for plum wart, Rec. II, 408.
 - soap for grape mildew and black rot, Rec. IX, 363.
 - as a fungicide, Rec. XII, 464.
 - effect on—
 - algae and fungi, Rec. XII, 1014.
 - fermentation of grape must, Rec. VI, 969; VII, 20.
 - germination, Rec. VIII, 497.
 - Isaria farinosa*, Rec. VI, 437.
 - seed corn, Rec. IV, 472.
 - seed wheat, Rec. III, 358.
 - soil and plants, Rec. III, 499.
 - yeast, Rec. VI, 507.
 - examination, Rec. V, 538.
 - experiments, Rec. III, 864.
 - for apple and pear scab, Rec. V, 877.
 - apple scab and bitter rot, Rec. V, 1076.
 - asparagus rust, Rec. X, 865.
 - brown rot of stone fruits, Rec. III, 860.
 - celery leaf blight, Rec. V, 878.
 - corn root worm, Rec. V, 205.

Copper sulphate—Continued.

- for corn smut, Rec. III, 787.
 - crinberry diseases, Rec. III, 307.
 - for destroying—
 - Cardamine pratensis*, Rec. XII, 350.
 - weeds, Rec. X, 1049; XI, 461; XII, 565, 960, 961.
 - wild mustard, Rec. XII, 250, 253, 349, 351, 564, 759.
 - for grain rusts, Rec. VII, 876.
 - grain smuts, Rec. II, 221, 325, 342, 637, 639, 740; VI, 436, 1000; VII, 591; VIII, 898; XI, 361; XII, 858.
 - grape bacterial diseases, Rec. IX, 1058.
 - grape black rot, Bul. 2, II, 135; Rec. XI, 758, 759.
 - grape diseases, Rec. V, 878; VII, 592, 788.
 - grape mildew, Bul. 2, II, 135; Rec. VIII, 63, 141; XII, 657, 1053.
 - grape Peronospora, Rec. III, 926; XI, 362.
 - grape pourridie, Rec. V, 1100; VI, 60.
 - pear scab, Rec. V, 987.
 - plum fruit rot, Rec. VII, 138.
 - potato diseases, Rec. VI, 560; VII, 307.
 - potato rot, Rec. IV, 985; V, 61.
 - potato scab, Bul. 2, I, 153; Rec. III, 619; IV, 560.
 - quince leaf spot, Rec. IV, 929.
 - raspberry anthracnose, Rec. VII, 137.
 - rot fungus of fruits, Rec. V, 878.
 - sorghum smut, Rec. V, 354.
 - stinking smut of wheat, Rec. I, 209; II, 325; VI, 435.
 - sweet potato diseases, Rec. III, 307.
 - wheat, barley, and oat smut, Rec. IX, 363.
 - wheat smut, Rec. II, 221; III, 226, 286, 342; IV, 341; VII, 140; X, 559, 633.
- impure, Rec. IX, 1023.
- influence on germination of wheat, Rec. V, 437.
- in soil, effect on—
- peas, Rec. IV, 15.
 - tomatoes, Rec. IV, 15.
 - wheat, Rec. IV, 15.
- new methods of application, Rec. VII, 592.
- preparation and use, Rec. II, 409, 491, 601, 609; III, 23; VII, 231, 965; X, 60; XI, 174.
- weak solutions as fungicides, Rec. XI, 861.
- with arsenites, Rec. III, 175.
- London purple, Rec. II, 217; III, 525.
 - Paris green, Rec. II, 217; III, 525.

Copper sulphid for bean anthracnose, Rec. IV, 558, 559.

Copperas. (See IRON SULPHATE.)

Copperdine—

- analyses, Rec. IV, 56.
- Powell's, for potato scab, Rec. V, 789.

Coprinus—

- atramentarius*, notes, Rec. X, 551; XI, 322.
- comatus*, notes, Rec. IX, 649; X, 551; XI, 322.
- micaccus*, notes, Rec. X, 551; XI, 322; XII, 322.
- rostratus*, notes, Rec. IX, 450.
- stercorarius*, notes, Rec. IX, 450.

Coprinus, revision of genus, Rec. VII, 925.

Copris gopheri, n. sp., Rec. VI, 440.

Coproliite—

- bacterium of the Permian periods, Rec. VI, 196.
 - ground, notes on adulteration, Rec. V, 696.
- Coplocyca*—
- aurichalca*, notes, Rec. III, 309.
 - bicolor*, notes, Rec. XI, 62.
 - clavata*, notes, Rec. X, 458; XI, 62.
 - guttata*, notes, Rec. III, 309.
 - signifera*, notes, Rec. XI, 62.
- Coral spot canker, notes, Rec. XII, 573.
- Corchorus capsularis*, notes, Rec. IX, 41.
- Corepra cephalonica*, notes, Rec. IX, 853.
- Cord grass—
- analyses, Rec. II, 329, 487; V, 64; VI, 403.
 - fresh water, notes, Rec. VIII, 780.
 - marsh, analyses, Rec. V, 64.
 - notes, Rec. II, 487.

Cord wood, estimation in standing forests, Rec. XII, 456.

Cordia alliodora, notes, Rec. III, 103.

Cordon pear trees, planting and training, Rec. VIII, 791.

Cordulia spinigera, notes, Bul. 2, II, 93.

Cordyceps—

- entomorrhiza*, notes, Rec. IX, 471.
- gunii*, notes, Rec. IX, 361.
- melolonthæ*, notes, Rec. VI, 149.
- militaris* on a beetle, Rec. X, 662.
- stuckarii*, notes, Rec. XII, 870.

Cordyceps, revision of genus, Rec. VI, 872; X, 22.

Corcopsis—

- lanccolata*, notes, Rec. IV, 653.
- triplicis*, analysis, Rec. III, 629.

Coriander, culture, Rec. IX, 357.

Coriandrum sativum, notes, Rec. VI, 218.

Corincharia—

- catena*, notes, Rec. XI, 472.
- publicaria*, notes, Rec. II, 81; IV, 839; V, 791, VI, 150; X, 369.

Coriscus ferus, notes, Rec. X, 62.

Cork—

- dust—
 - analyses, Rec. XII, 225.
 - for packing grapes, Rec. V, 909.
- formation by plants, Rec. IX, 330.
- forming trees, notes, Rec. VI, 821.
- oak—
 - analyses, Rec. XII, 456.
 - distribution, Rec. III, 597.
 - production, Rec. X, 53; XI, 747.
- tissues of certain rocks, structure, Rec. XI, 818.

Corn—

- albuminoid nitrogen, Rec. II, 399; V, 488.
- analyses, Bul. 2, II, 94, 122, 129; Rec. I, 15, 233, 250; II, 50, 117, 169, 243, 399, 478, 480, 504, 579, 590, 666, 744; III, 379; IV, 136, 1023; V, 36, 173, 488; VI, 31, 34, 716; VII, 396, 702; VIII, 331, 520; IX, 786, 865; X, 276, 624, 678, 844, 946; XI, 381, 777, 883, 971; XII, 70, 378, 478, 877, 1077.
- (See also CORN BRAN, FODDER, MEAL, STOVER, etc.)
- analyses—
 - at different stages of growth, Rec. II, 119, 341, 590; V, 173, 977; VI, 31, 716.
 - (See also CORN FODDER.)

Corn—Continued.

analyses—Continued.

of different parts, Rec. II, 128, 169, 330;
III, 318.

and barley *v.* molasses feed for pigs, Rec. XI,
69.

cane, culture experiments, Rec. XI, 43.

cob, analyses, Rec. XII, 234.

and cob meal—

analyses, Bul. 2, I, 83; Rec. II, 133; III,
157, 220; IV, 64, 733, 935; VI, 274, 444;
VII, 614, 835; VIII, 426, 508, 520; X, 678;
XII, 234, 378.

for cows, Rec. III, 219, 222; XI, 1079.

pigs, Bul. 2, I, 78, 82; Bul. 2, II, 44;

Rec. I, 63; III, 157, 222; VII, 607.

steers, Rec. I, 210; III, 162; XI, 1068.

v. wheat for steers, Rec. VIII, 811.

and corn by-products, Rec. VII, 883.

corn meal, new milling process, Rec. VII,
155.

cowpea field, grazing with steers, Rec.
XI, 965.

cowpeas, culture, Rec. IV, 36; XII, 232.

grass-feeding *Chaetocnemas*, Rec. X, 61.

its products, composition, Rec. X, 1040;
XII, 745.

and oat chop—

analyses, Rec. VII, 336.

description, Rec. XI, 971.

feeds, analyses, Rec. XII, 877.

and oat—

feed, analyses, Rec. III, 13, 878; XI, 279;
XII, 70, 281, 378, 472, 587, 877.

feed, digestibility, Rec. XI, 566.

mixtures, analyses, Rec. VI, 444.

smut, Rec. V, 59.

and oats—

analyses, Rec. VIII, 1003; X, 276; XII,
282, 877.

for horses, relative value, Rec. VI, 751.

and peas for lambs, Rec. VIII, 714; IX, 578.

sorghum, culture experiments, Rec. IV,
36.

sorghum silage compared, Rec. II, 743.

soy-beans, digestibility, Rec. IX, 373.

tomatoes, canned, analyses, Rec. V, 220.

and wheat—

for pigs, Rec. VI, 466; VII, 122; X, 176.

v. Kafir corn for pigs, Rec. VII, 800.

anthers, analyses, Rec. III, 616; IV, 339.

aphis—

notes, Rec. VII, 879; XII, 367.

remedies, Rec. VIII, 502.

as a trap crop for cotton bollworms, Rec. IV,
304.

ash analyses, Rec. V, 488; VI, 274, 288; X, 845.
873.

as human food, Rec. VII, 707; XII, 481.

assimilation, Rec. XII, 640.

assimilation of—

ammonia, Rec. X, 1011.

carbonic acid by, Rec. IV, 613.

bacterial disease, Rec. I, 199.

barnyard manure for, Rec. I, 33; II, 473; III,
529, 785; IV, 251, 809; V, 1071; VI, 135; IX,
340.

Corn—Continued.

Bedouin, notes, Rec. XI, 1037.

beetle, notes, Rec. VII, 879.

billbug, notes, Rec. III, 175; IV, 57; V, 402;
VI, 314; VII, 878.

black mold in, Rec. VI, 65.

blight, notes, Rec. XII, 462.

blossoms, analyses, Rec. X, 678.

Bolivian guano for, Rec. II, 484.

borer, notes, Bul. 2, I, 99.

botanical—

and economic studies, Rec. V, 933; VI, 692.

studies, Rec. I, 251, 265, 286; X, 22.

bran—

analyses, Rec. III, 318, 875; IV, 174; V, 794;

VI, 153; VIII, 520; XI, 381; XII, 877.

effect on milk production, Rec. X, 588.

branching, Rec. I, 93.

Brazilian. (*See* BRAZILIAN CORN.)

breeding, Bul. 2, II, 35; Rec. I, 97; II, 267, 343,
344, 722, 723; III, 218, 697; IV, 134, 282, 905;

VI, 30, 981; XI, 498, 706, 928; XII, 717.

breeding, improvement by selection, Rec. II,
155; VI, 135, 415; XI, 633.

butt, middle, and tip kernels for food, Rec.
III, 857.

butts, analyses, Rec. II, 589; IV, 733.

by products, Rec. VII, 883.

by-products—

as a feeding stuff, Rec. XI, 381.

for cows, Rec. V, 316.

Cameroon. (*See* CAMAROON CORN.)

canned—

analyses, Rec. IV, 59; V, 220.

bacteria in, Rec. XII, 876.

canning, Rec. VII, 36.

canning industry, Rec. V, 799.

carbohydrates, Rec. VIII, 664.

chops, analyses, Rec. II, 340; VIII, 561, 623, 810;
XII, 378.

cob and shuck meal, analyses, Rec. VIII, 520.

cobs—

analyses, Bul. 2, I, 83; Rec. II, 504; III, 318;
V, 164, 173; VI, 842, 1008; VII, 702; VIII,

520; X, 474, 626; XI, 777, 883; XII, 378.

ash analyses, Rec. V, 164; XI, 719.

digestibility, Rec. VI, 318.

cockle—

bran, analyses, Rec. VI, 1008.

feeding experiments, Rec. V, 228, 813.

effect on pigs, Rec. IV, 90.

in breadstuffs and flour, danger from,
Rec. IV, 310.

notes, Rec. III, 308; V, 529, 913; X, 516.

poisoning cows, Rec. XII, 394.

poisonous quality, Rec. IV, 90, 91, 783.

poisonous to stock, Rec. XII, 911.

root system, Rec. IV, 46.

seed, saponin in, Rec. IV, 387.

composts for, Rec. VI, 526.

continuous cropping, Rec. IV, 906; VI, 136,
211; IX, 551.

cost—

and profit in growing, Rec. V, 576, 1005.

as compared with sugar beets and mangel-
wurzels, Rec. XII, 632.

of growing, Rec. IX, 348; X, 540; XII, 641.

Corn—Continued.

- cotton seed *v.* cotton-seed meal for, Rec. II, 552; III, 606; XI, 926.
- cowpeas, and wheat bran for pigs, Rec. IX, 272.
- cracked, analyses, Rec. XII, 907.
- crambid, notes, Rec. III, 327; IV, 660; V, 593.
- crop—
 - condition and acreage, Rec. III, 107, 183, 326, 545; IV, 203, 283, 431; V, 328.
 - of Hungary, 1899, Rec. XI, 698.
 - the world, Rec. XII, 1698.
 - statistics, Rec. VI, 582.
 - value in Pennsylvania, Bul. 2, II, 122.
- crossing with teosinte, Rec. VIII, 563.
- cultivation, Rec. II, 17, 19, 154, 166, 336, 511, 552, 557, 560, 571; III, 26, 40, 95, 129, 322.
- cultivation—
 - amount of, Bul. 2, II, 115; Rec. IX, 125.
 - at different dates, Rec. IV, 718.
 - by different methods, Bul. 2, II, 17, 152; Rec. III, 322; VI, 33, 34; IX, 39.
 - frequency, Rec. I, 31, 32; VI, 30, 32; X, 137.
 - frequency and depth, Rec. III, 855; IV, 904; V, 40.
 - to different depths, Rec. I, 18, 31, 32, 38, 92; III, 322, 848, 851; IV, 37, 718, 809, 810; V, 36, 978; VI, 30, 135, 415, 527; VII, 32, 113, 114, 200; VIII, 214, 300, 773; IX, 37, 125; X, 236, 429.
- cultivators, tests, Rec. III, 851; IV, 810; VI, 415; XII, 44.
- cultural implements, Rec. VII, 113.
- culture, Bul. 2, I, 66; Bul. 2, II, 122; Rec. I, 92, 211; VII, 681; X, 540, 749, 846, 945; XI, 497, 642.
- culture—
 - experiments, Bul. 2, I, 21, 64, 70; Bul. 2, II, 13, 70, 113, 121, 147; Rec. I, 102; III, 159, 280, 604, 713, 786; IV, 36, 39, 136, 251, 346, 825; VI, 296, 405, 890; VII, 120, 121, 295; VIII, 308, 400, 490; IX, 39, 124, 243, 833; X, 340, 628, 846; XI, 332, 335, 339, 440, 832, 834; XII, 41, 44, 134, 229, 230, 430, 432, 536, 631, 745, 842, 849, 1036.
 - for meal and fodder in Germany, Rec. X, 432.
 - hill *v.* drill, Rec. V, 292; VII, 114, 121; IX, 340.
 - hilling, Rec. I, 92.
 - hilling *v.* check rowing, Rec. V, 37.
 - in North Carolina, Rec. XII, 538.
 - the South, Rec. X, 540.
 - listing *v.* check rowing, Bul. 2, II, 17.
 - manual, Rec. XI, 443.
 - on scrub lands, Rec. IX, 246.
- cutworms, notes, Rec. V, 63.
- delphax, notes, Rec. X, 658.
- dent—
 - analyses, Rec. II, 117.
 - score card, Rec. VIII, 490.
 - v.* flint varieties, Rec. II, 479; V, 36.
- detasseling, Bul. 2, II, 16; Rec. III, 849, 851, 858; IV, 37, 338, 644, 810, 811, 905; V, 42, 577, 862, 1071; VI, 32, 216, 418, 526, 527, 981; VII, 383, 943; X, 147.
- development as affected by latitude, Rec. XI, 120.
- diet, improvement, Rec. IX, 1078.

Corn—Continued.

- digestible—
 - matter, Rec. II, 170; V, 1071.
 - matter per acre, Rec. V, 67; VI, 157.
- digestibility, Bul. 2, II, 129; Rec. IV, 734; VI, 6, 7; IX, 476, 981; X, 79; XII, 872.
- digestibility—
 - as affected by ensiling, Rec. VI, 159.
 - as affected by field curing, Rec. VI, 159.
 - as affected by rate of seeding, Rec. VI, 157.
 - at different stages, Rec. VI, 157.
 - of different varieties, Rec. VI, 157.
- distribution—
 - and consumption, Rec. II, 609; III, 728; IV, 762; V, 1005; VI, 943.
 - of seed, Rec. IV, 436.
- draft on soil, Rec. VI, 137.
- dry and digestible matter in, Rec. V, 1071.
- dry matter in, Rec. IV, 905; VII, 199.
- dry matter in, at different stages of growth, Bul. 2, II, 122; Rec. III, 840, 851; VI, 716, 743.
- duties on, in Mexico, Rec. IV, 282.
- ear worm, notes, Rec. III, 53, 54; V, 101, 790; VI, 313; X, 164.
- ears, analyses, Rec. VII, 127; IV, 126.
- Eastern *v.* Western grown, Rec. III, 318.
- economic value, Rec. XI, 926.
- effect of—
 - anesthetics, Rec. XI, 1056.
 - copperas, Rec. I, 62.
 - climate on composition, Rec. III, 245.
 - cultivation on root mutilation, Bul. 2, I, 147.
 - different amounts of cultivation, Bul. 2, II, 115.
 - distance of planting on composition, Rec. X, 171.
 - etiolation, Rec. XII, 613.
 - fertilizers on composition, Rec. I, 62, 156; II, 338, 476, 579; III, 379.
 - fertilizers on proportion of kernel to cob, Rec. II, 725.
 - fertilizers on shrinkage, Rec. II, 144, 725.
 - fungicides on germination of, Rec. V, 881.
 - iron sulphate on, Rec. I, 62.
 - lime, Rec. V, 778, 779, 780, 978; X, 633.
 - nickel salts on, Rec. V, 637.
 - nitrogenous fertilizers, Rec. XI, 509, 836.
 - pollen, immediate, Rec. XII, 717.
 - previous manuring, Bul. 2, I, 70; Rec. I, 39; III, 852; IV, 810; X, 236.
 - pulling fodder, Rec. I, 72; II, 551.
 - removing tassels on prolificacy, Rec. II, 505.
 - root mutilation, Bul. 2, I, 148.
 - slow drying on carbohydrates, Rec. VI, 744.
 - topping and stripping, Rec. II, 474, 658.
- effect on—
 - milk, Rec. V, 970.
 - quality of butter, Rec. XI, 781.
- Egyptian—
 - analyses, Rec. VIII, 331, 688; X, 276.
 - culture experiments, Rec. VI, 984.
 - notes, Rec. XII, 1031.
 - rice. (*See* EGYPTIAN RICE CORN.)
- endosperm, hybrid fecundation, Rec. XII, 421.

Corn—Continued.

ensiling—

ears with stover, *Rec. V*, 500.
changes in, *Rec. II*, 431, 449, 668.
loss in, *Rec. II*, 489, 668; *V*, 52; *VI*, 66; *X*, 138.

v. field curing, *Bul. 2, I*, 206; *Rec. II*, 249, 358, 449; *III*, 457; *IV*, 145; *V*, 312, 313; *VIII*, 72.

v. dry storage, *Rec. V*, 52.
without pressure, *Rec. XII*, 80.

export to Mexico, *Rec. V*, 221.

exports, *Rec. IV*, 282; *XII*, 698.

evolution, *Rec. VI*, 294.

feed—

analyses, *Rec. XII*, 378.

cooked, analyses, *Rec. VI*, 331.

feeding value, *Bul. 2, II*, 21; *Rec. II*, 743; *III*, 848; *VIII*, 124; *XI*, 73, 381, 397, 576.

feeding value—

as affected by time of cutting, *Rec. X*, 138.
of different parts, *Rec. VII*, 944.

fertilizer—

experiments, *Bul. 2, I*, 37, 47, 49, 72, 83, 106, 126, 165, 189, 190; *Bul. 2, II*, 115, 151; *Rec. I*, 3, 8, 33, 61, 62, 70, 72, 75, 132, 198, 285; *II*, 18, 145, 149, 398, 479, 484, 550, 552, 559, 560, 571, 579, 596, 643, 649, 657, 724; *III*, 14, 25, 96, 164, 280, 294, 320, 321, 322, 377, 394, 513, 514, 529, 530, 589, 590, 604, 606, 785, 849, 852, 858, 867, 868, 874, 887; *IV*, 27, 28, 37, 75, 132, 137, 246, 251, 339, 346, 470, 644, 716, 717, 718, 804, 808, 810; *V*, 35, 51, 167, 168, 172, 291, 332, 573, 574, 575, 778, 779, 780, 862, 978, 1029, 1071; *VI*, 136, 202, 212, 256, 288, 293, 296, 415, 525, 542, 720, 799, 884, 892; *VII*, 26, 113, 114, 121, 198, 201, 291, 379, 383, 579, 862, 942, 943; *VIII*, 213, 397, 398, 401, 486, 490, 778, 882; *IX*, 39, 124, 237, 340, 634, 746, 830, 832; *X*, 139, 342, 626, 729, 836, 950; *XI*, 39, 44, 835, 529, 632, 833, 834, 836, 1030; *XII*, 37, 41, 125, 127, 227, 228, 233, 330, 536, 539, 623, 931, 941, 1025, 1028, 1029.

experiments, cooperative, *Rec. V*, 168; *VII*, 764; *VIII*, 399; *X*, 350.

formula, *Rec. XII*, 851.

requirements, *Rec. VI*, 137.

fertilizers for, *Rec. II*, 473.

fertilizers, residual effect, *Rec. VI*, 135; *VII*, 113, 944.

fertilizing constituents, *Rec. II*, 170, 480, 743; *IV*, 906.

field and sweet, comparison, *Rec. V*, 781.

field curing, *Rec. V*, 1074.

field curing—

in large and small stooks, *Rec. II*, 668.
loss in, *Rec. II*, 452, 480; *III*, 716.

v. ensiling, *Bul. 2, I*, 206; *Rec. II*, 249, 358, 449; *III*, 457; *IV*, 145; *V*, 312, 313; *VIII*, 72.

flat culture, *Rec. IV*, 339.

flint, analyses, *Rec. II*, 117; *VIII*, 426.

flour in wheat flour, *Rec. X*, 314; *XII*, 612.

fly—

notes, *Rec. VIII*, 418.

ribbon-footed, notes, *Rec. V*, 740.

Corn fodder—

analyses, *Bul. 2, I*, 83, 197, 209; *Bul. 2, II*, 73, 358; *Rec. I*, 15, 136; *II*, 50, 208, 358, 359, 589, 645, 668; *III*, 16, 157, 246, 296, 375, 401, 458, 715, 725; *IV*, 66, 733; *V*, 66, 194, 195, 232, 292, 313; *VI*, 157, 569, 842, 1008; *VII*, 891; *VIII*, 426; *X*, 315, 474; *XI*, 277, 777, 883; *XII*, 234, 378, 478.

(*See also* CORN, ANALYSES.)

and green soy beans for silage, *Rec. V*, 668.

cost and feeding value, *Rec. IX*, 790.

culture, *Rec. II*, 127; *III*, 198; *IV*, 136, 872; *XII*, 45, 331.

curing in large and small stooks, *Rec. II*, 668.

digestibility, *Bul. 2, I*, 132; *Bul. 2, II*, 128; *Rec. I*, 296; *II*, 155, 645; *III*, 246, 454, 459; *IV*, 569, 736; *V*, 66; *VI*, 746; *VIII*, 510; *IX*, 866; *X*, 180; *XII*, 370.

digestibility of nitrogen-free extract, *Rec. VI*, 155.

effect of frost, *Rec. II*, 668.

feeding value, *Rec. II*, 219; *III*, 716.

fertilizing constituents, *Bul. 2, I*, 133.

food constituents, *Rec. VII*, 675.

for cows, *Rec. II*, 666; *III*, 153, 216, 222, 473; *IV*, 65; *VI*, 158, 460.

pigs, *Rec. III*, 130.

steers, *Rec. III*, 162, 392.

stock, *Bul. 2, II*, 38.

loss in—

drying, *Rec. VI*, 982.

making, *Bul. 2, I*, 196; *Rec. I*, 46.

preserving by different methods, *Rec. VIII*, 73.

preservation, *Rec. V*, 312; *X*, 429.

sampling, *Rec. V*, 66.

shredded—

analyses, *Rec. V*, 794; *VIII*, 520.

and jack-bean meal for steers, *Rec. IX*, 76, 168.

digestibility, *Rec. VIII*, 1005.

subsoiling for, *Rec. XII*, 628.

time of harvesting, *Rec. IV*, 437; *V*, 292.

varieties for, *Rec. II*, 127; *III*, 360; *VII*, 31.

v. hay for cows, *Bul. 2, I*, 74; *Rec. VIII*, 930.

v. silage—

for cows, *Bul. 2, I*, 161, 192, 196; *Rec. II*, 204, 440, 666; *IV*, 178, 481; *V*, 316; *VI*, 453; *IX*, 790.

heifers, *Bul. 2, I*, 161; *Rec. II*, 204.

milk and butter production, *Rec. II*, 430, 440.

sheep, *Rec. III*, 412.

steers, *Rec. III*, 412.

from corn cut at different periods of growth, *Rec. II*, 358.

relative storage room required by, *Bul. 2, I*, 196.

v. sugar beets for cows, *Rec. II*, 247.

waste in feeding, *Rec. I*, 46.

yield—

at different stages of maturity, *Rec. IX*, 342.

per acre, *Rec. II*, 645; *III*, 718; *IV*, 136.

Corn—

food value, *Rec. III*, 484.

Corn—Continued.

- food value of scorched, *Rec. VIII*, 615.
- for beer making, *Rec. V*, 326, 656.
- brewing purposes, *Rec. VI*, 1026.
- cows, *Rec. II*, 666; *IX*, 789.
- hens, *Rec. III*, 36.
- horses, *Rec. V*, 328; *VI*, 162, 242, 751.
- horses, in Germany, *Rec. V*, 328.
- plgs, *Rec. II*, 647; *III*, 222; *IV*, 742; *VI*, 466; *VII*, 523; *VIII*, 921; *IX*, 273; *X*, 176; *XI*, 71, 377, 669.
- silage, *Bul. 2, I*, 171; *Rec. II*, 116; *VI*, 34, 716; *VII*, 862.
- silage— (*See also* SILAGE.)
 - analyses, *Rec. II*, 358; *V*, 64; *XI*, 882; *XII*, 234, 1077.
 - culture, *Rec. IV*, 39.
 - culture experiments, *Bul. 2, I*, 190; *Rec. II*, 412, 741; *III*, 17.
 - fertilizer tests, *Rec. III*, 294.
 - methods of planting, *Rec. II*, 117, 430, 590, 741; *III*, 131.
 - time of cutting, *Bul. 2, I*, 156; *Rec. II*, 358, 430, 590, 741.
 - varieties, *Bul. 2, II*, 23, 76, 100; *Rec. I*, 29, 95, 140, 165; *II*, 109, 116, 119, 128, 166, 337, 430, 590, 667, 741; *III*, 17, 88, 95, 376; *V*, 623; *VII*, 149, 425.
 - wagon rack for hauling, *Rec. IV*, 153.
 - whole stalks, *Rec. IV*, 36.
 - yield as affected by rate of seeding, *Rec. V*, 36.
 - yield per acre, *Bul. 2, I*, 192; *Rec. II*, 270, 741; *III*, 17.
- soiling, *Rec. IV*, 480.
- soiling, yield as affected by—
 - rate of seeding, *Rec. V*, 36.
 - variety, *Rec. V*, 36.
- steers, *Rec. III*, 179, 284; *IV*, 475; *XII*, 670.
- fuel value, *Rec. IX*, 196.
- fungus disease, new, *Rec. X*, 56.
- germ—
 - analyses, *Rec. I*, 282; *II*, 579; *XI*, 971; *XII*, 71, 478.
 - digestibility, *Rec. XII*, 873.
- germ feed—
 - analyses, *Rec. IV*, 176, 475.
 - for cows, *Rec. V*, 73, 316.
- germ meal, analyses, *Rec. V*, 194, 312; *X*, 276.
- germination as affected by—
 - formaldehyde, *Rec. XII*, 457.
 - fungicides, *Rec. V*, 881.
 - hot water treatment *Rec. V*, 304.
 - potassium sulphid, *Rec. V*, 304.
- germination—
 - physiology of, *Rec. VIII*, 471.
 - studies, *Rec. XI*, 355.
 - temperature for, *Rec. XI*, 1056.
 - tests, *Bul. 2, I*, 30, 185; *Rec. I*, 295; *II*, 19, 128; *V*, 628, 910; *VI*, 275.
- green manuring for, *Rec. II*, 10; *IV*, 718; *V*, 169, 702; *VIII*, 400; *IX*, 340; *XI*, 921.
- ground and ground oats, analyses, *Rec. XI*, 279.
- growing continuously on the same land, *Rec. III*, 770.
- growth, *Rec. III*, 131, 467.

Corn—Continued.

- growth—
 - as affected by weather, *Rec. III*, 466.
 - in darkness, *Rec. XII*, 910.
 - of dry matter, *Rec. II*, 128, 562, 667.
 - period of, *Rec. II*, 14, 18; *IV*, 134, 810; *VII*, 112.
- Guinea. (*See* GUINEA CORN.)
- gypsum for, *Rec. III*, 858; *V*, 573, 780.
- harvester, Leonard, test, *Rec. V*, 796.
- harvesters, tests, *Rec. VII*, 431; *IX*, 597.
- harvesting—
 - at different dates, *Bul. 2, II*, 18, 122; *Rec. I*, 47, 165; *II*, 118, 120, 590, 668; *V*, 172; *VI*, 30.
 - different stages, *Rec. II*, 336.
 - by different methods, *Rec. III*, 95; *V*, 41, 487; *VII*, 944; *IX*, 38; *XI*, 1030.
 - cutting and shocking, *Rec. VI*, 526; *IX*, 828.
 - for grain and fodder, *Rec. III*, 856.
 - implement for loading and unloading, *Rec. II*, 219.
- history, *Rec. I*, 251, 265, 286; *IV*, 388; *VI*, 275.
- husker—
 - and fodder cutter, *Rec. VI*, 345.
 - Keystone, test, *Rec. V*, 606, 796.
- husks, analyses, *Rec. II*, 579; *III*, 318; *V*, 173; *VIII*, 520, 810.
- importation into Mexico, *Rec. IV*, 431.
- imports into Europe, *Rec. VI*, 677.
- industry in the United States, *Rec. III*, 484.
- injury by cutworms, *Rec. II*, 171.
- insects affecting, *Rec. II*, 169, 455; *VI*, 654; *VII*, 681; *VIII*, 501, 507; *XII*, 1067.
- intercultural fertilizing, *Rec. II*, 551; *III*, 605; *IV*, 808; *VI*, 526.
- introduction and culture in Europe, *Rec. IV*, 389.
- irrigation, *Rec. VIII*, 689; *IX*, 594.
- irrigation—
 - experiments, *Bul. 2, I*, 28; *Rec. III*, 890; *V*, 691; *X*, 747; *XI*, 538; *XII*, 40, 842.
 - surface *v.* subirrigation, *Rec. VIII*, 733.
- Japanese, notes, *Bul. 2, II*, 723.
- Jerusalem. (*See* JERUSALEM CORN.)
- juice, analyses, *Rec. X*, 716.
- Kafir. (*See* KAFIR CORN.)
- kafnit for, *Rec. IV*, 37; *V*, 1071.
- kernel, proteids, *Rec. IX*, 519.
- kernels—
 - albuminoids in, *Rec. III*, 768.
 - analyses, *Rec. I*, 15; *III*, 13, 14, 162, 198, 245, 318, 357, 375, 890; *IV*, 36, 39, 47, 733, 906; *V*, 173, 194, 410, 596, 631; *VI*, 163, 569, 839, 842, 985, 1008; *VIII*, 426; *X*, 474.
 - and cobs, analyses, *Rec. V*, 64.
 - digestibility, *Bul. 2, II*, 43.
 - ensiled, analyses, *Rec. III*, 13.
 - field-cured, analyses, *Rec. III*, 13.
 - improvement of chemical composition, *Rec. XI*, 633.
 - large *v.* small for seed, *Rec. III*, 856.
 - water content, *Rec. X*, 636.
- leaf blight, *Rec. X*, 260.
- leaf hopper, notes, *Rec. III*, 859.
- leaf miner, notes, *Rec. VII*, 229.

Corn—Continued.

- leaves, analyses, Rec. II, 589; III, 127; V, 64, 173.
- lecithin content, Rec. V, 803.
- liming experiments, Rec. V, 778, 779, 780, 987; X, 663; XII, 625.

Corn meal—

- analyses, Bul. 2, I, 83, 197; Rec. I, 197, 255; II, 50, 133, 504, 565, 579, 589, 645, 666; III, 153, 157, 288, 296, 401, 616, 878; IV, 59, 64, 68, 173, 176, 177, 475, 569, 935; V, 64, 66, 194, 316, 410, 596; VI, 444, 569, 842, 1008; VII, 155, 614, 835; VIII, 426, 520, 810, 1003; IX, 786; X, 276, 678; XI, 279, 381, 971; XII, 70, 281, 378, 877, 907, 981.

and bran—

- for pigs, Rec. XI, 967.
- v. Atlas meal for cows, Rec. IX, 879.
- and potatoes v. shorts and bran for pigs, Rec. I, 216.
- shorts for pigs, Rec. X, 674; XI, 667, 879.
- as an adulterant of flour, Rec. XI, 482.
- cost and valuation, Bul. 2, I, 53.
- damaged, analyses, Rec. I, 17.
- digestibility, Bul. 2, I, 132, 157, 158; Rec. X, 76, 880; XII, 873.

effect on—

- volatile fatty acids of butter, Rec. V, 974.
- yield of milk, Rec. V, 968.
- fat content, Rec. V, 801; VII, 17.
- fertilizing constituents, Bul. 2, I, 133.
- for butter production, Rec. V, 72.
- cabbage worms, Rec. IV, 203.
- calves, Rec. III, 221.
- cows, Bul. 2, II, 43, 80; Rec. II, 362, 363, 592; III, 19, 153, 166, 287, 592; IV, 260; V, 1081; VIII, 335; XI, 999.
- goats, Rec. V, 1081.
- pigs, Bul. 2, I, 78, 82; Bul. 2, II, 44; Rec. I, 63; II, 413, 426, 439, 647; III, 49, 156, 181, 478; IV, 68, 421, 423; VI, 161; VIII, 921; XI, 879, 967; XII, 982.
- pigs, heavy and light feeding, Rec. IV, 484; V, 318.
- sheep, Rec. III, 572.
- steers, Bul. 2, II, 43; Rec. III, 179, 572; IV, 475; V, 1081.

malted, analyses, Rec. XII, 877.

sifted, analyses, Rec. XII, 877.

unbolted, analyses, Rec. VIII, 810.

- v. barley meal for pigs, Rec. IV, 421, 423; XI, 72.
- bran and linseed meal for milk production, Rec. V, 889.

Cerealine feed for pigs, Rec. XI, 568.

corn for pigs. (See CORN v. CORN MEAL FOR PIGS.)

gluten meal for butter production, Rec. III, 86.

grass for steers, Rec. VI, 452.

hominy meal for pigs, Rec. XI, 568.

linseed meal—

- and wheat bran for cows, Rec. V, 887; VIII, 335.
- for steers, Rec. V, 69.
- oat feed for pigs, Rec. IX, 375.
- oats and bran for lambs, Rec. VIII, 714.

Corn meal—Continued.

- v. rice meal for pigs, Rec. III, 478, 479; IX, 374.
- shelled corn for pigs, Rec. IX, 870.
- sweet potatoes for pigs, Rec. X, 579.
- v. wheat bran for—
 - fowls, Rec. IV, 940.
 - steers, Bul. 2, II, 82.
- v. wheat meal for—
 - beef cattle, Rec. VIII, 77.
 - cows, Rec. VIII, 825.
- v. whole corn for pigs. (See CORN v. CORN MEAL FOR PIGS.)

Corn—

meteorology as related to growth, Bul. 2, II, 136.

moisture in, Rec. II, 18, 398, 560.

moldy—

- effects of eating, Rec. XII, 94.
- effects of feeding, Rec. XII, 898.
- micro-organisms in, Rec. XII, 94.
- producing cerebritis, Rec. V, 203.

mulching, Rec. V, 36, 777.

new species, Rec. IV, 811.

nitrate of soda on, Rec. V, 776.

nitrogen content at different cuttings, Rec. V, 977.

nitrogen experiments, Bul. 2, II, 149.

nitrogen supply for, Rec. III, 463.

nitrogenous fertilizers for, Rec. III, 377.

nonalbuminoid nitrogen, Rec. II, 399.

northern v. southern grown, Rec. III, 318.

notes, Bul. 2, II, 23; Rec. V, 856; XI, 1037.

oat, and barley feed, analyses Rec. VII, 336; XII, 169, 281, 282, 378.

oil, Rec. IX, 594.

oil—

- analysis, Rec. X, 817.
- and "cotton stearin," Rec. V, 441.
- cake, analysis, Rec. VI, 931; VIII, 1003.
- cake for cows, Rec. VIII, 1020.
- chemistry, Rec. XII, 308.
- detection in cotton-seed oil, Rec. XI, 814.
- for cows, effect on butter, Rec. IV, 664; V, 974.

nature and properties, Rec. XII, 1006.

origin, culture, and enemies, Rec. VII, 681.

pentosans in, Rec. V, 1104.

phosphate, South Carolina, for, Rec. II, 484.

phosphates for, Rec. II, 483, 484, 649; III, 461; IV, 131; V, 778, 779.

phosphatic fertilizers for, Rec. III, 461.

phosphoric-acid experiments, Bul. 2, II, 150.

pith, analyses, Rec. X, 625.

plant louse, notes, Rec. II, 269; III, 175; VI, 314.

planting—

- and replanting, Rec. XI, 296.
- at different dates, Bul. 2, II, 114; Rec. I, 29, 38; II, 14, 19, 165, 557; III, 39, 847, 850, 851; IV, 809, 904; VI, 29, 134, 415, 981; VII, 112, 945; VIII, 689; IX, 125, 237; X, 945.
- different depths, Bul. 2, II, 114; Rec. I, 30; II, 15, 165, 557, 560; IV, 904; VI, 29; VIII, 223; IX, 237.

Corn—Continued.

- planting—continued,
 at different distances, *Bul.* 2, I, 37, 190;
Rec. I, 30, 72; II, 10, 16, 17, 19, 165,
 335, 476, 552, 557, 571; III, 26, 95; IV,
 37, 339, 809, 904; V, 172, 624, 625, 978;
 VI, 29, 33, 134, 416, 981; VII, 112, 672,
 856; VIII, 214, 773, 882; IX, 38, 124,
 441, 828; X, 137, 139; XI, 39, 233, 1030;
 XII, 143.
 different distances, effect on composi-
 tion, *Rec.* X, 171.
 different rates, *Bul.* 2, II, 114; *Rec.* I,
 38, 166; III, 847, 850, 851; V, 41; VI,
 415, 527; VII, 945; VIII, 689, 773; IX,
 830; X, 945.
 by different methods, *Bul.* 2, II, 17, 151;
Rec. VI, 33, 34; VIII, 400; IX, 342.
 drilling *v.* broadcasting, *Bul.* 2, I, 107;
Rec. II, 590.
 for grain and fodder, *Rec.* III, 857.
 in hills and drills, *Rec.* I, 31; II, 557, 596;
 IV, 904; V, 623; VI, 30.
 listing *v.* check rowing, *Bul.* 2, II, 17;
Rec. X, 429.
 listing *v.* surface planting, *Rec.* II, 336.
 losses due to inaccuracy in, *Bul.* 2, II, 13.
 preparation of the soil, *Rec.* III, 26; V,
 90; VII, 113, 199; VIII, 214.
 seed of different kinds. (*See* CORN, SEED.)
 plants, manual, *Rec.* XI, 423.
 plowing—
 fall *v.* spring, *Rec.* X, 429.
 to different depths for, *Rec.* III, 848, 850;
 VI, 135, 415; X, 429; XII, 432, 442.
v. subsoiling, *Rec.* IX, 126.
 pollen—
 analyses, *Rec.* III, 616; IV, 339.
 secondary effect of, *Rec.* XI, 1016.
 pollination of, *Rec.* XI, 706.
 pop. (*See* POP CORN.)
 potash experiments, *Bul.* 2, II, 150.
 potash fertilizers for, *Rec.* III, 867; V, 292,
 573, 778, 780, 862; VI, 542.
 product, new—
 analyses, *Rec.* X, 477.
 digestibility, *Rec.* X, 76.
 value as a feeding stuff, *Rec.* IX, 76.
 (*See also* CORN SHIVES.)
 production—
 and consumption, *Rec.* XII, 798.
 distribution, *Rec.* IV, 844.
 in Kentucky, *Rec.* XII, 547.
 New South Wales, *Rec.* V, 221.
 the United States, *Rec.* V, 612.
 profit in, *Rec.* III, 132.
 products, analyses, *Rec.* VI, 1023.
 protein—
 content, *Rec.* XII, 71.
 in, grown with or without nitrogen, *Rec.*
 V, 579.
 pulling fodder, *Rec.* I, 72; II, 474, 551, 658;
 III, 604, 606, 725; IV, 808; V, 1071; VI, 526,
 527, 884; VIII, 882.
 races, *Rec.* XII, 745.
 rate of growth, *Bul.* 2, II, 138; *Rec.* VI, 31;
 VII, 945.

Corn—Continued.

- relation—
 between different parts of plant and yield
 of grain, *Rec.* VIII, 486.
 between ear corn and shelled corn, *Rec.*
 II, 564.
 of kernels to cob, *Rec.* II, 399, 725.
 parts of the plant, *Rec.* II, 169, 430, 477;
 III, 319; X, 138.
 rainfall to crop, *Bul.* 2, II, 29.
 to environment, *Rec.* VI, 275.
 relative value of good and poor, *Rec.* III, 375.
 residual effect of—
 barnyard manure, *Rec.* VI, 135; VII, 113;
 VIII, 302; IX, 347.
 fertilizers, *Rec.* VII, 944.
 ripening, *Rec.* V, 977.
 ripening, time of different varieties, *Rec.*
 VIII, 214.
 root—
 development, *Rec.* V, 482.
 growth, *Bul.* 2, I, 66, 67; *Rec.* I, 32, 91;
 II, 16, 17, 558.
 louse, notes, *Rec.* II, 169; III, 657, 812; V,
 498, 514; VI, 314.
 mutilation, *Bul.* 2, I, 147, 148.
 pruning, *Rec.* I, 92; II, 17, 19, 154, 557, 561;
 III, 849; IV, 95; VI, 30; X, 945.
 system, *Rec.* XI, 215; XII, 312, 517.
Ustilago reilian on, *Rec.* VII, 411.
 webworm, notes, *Rec.* VI, 836.
 worm, *Rec.* I, 44, 45, 120; II, 81; III, 53,
 657; V, 205; VI, 150, 235, 314; VII, 697;
 878; VIII, 502, 505, 998.
 worm, prevalence, *Rec.* IV, 203.
 worm, Southern, notes, *Rec.* IV, 839.
 roots—
 analyses, *Rec.* II, 243.
 as affected by depth of tillage, *Bul.* 2, I,
 146.
 effect of copper salt on, *Rec.* III, 787.
 extent of, *Rec.* IV, 128.
 growth, *Rec.* IX, 241.
 injury by cultivation, *Bul.* 2, I, 148.
 rotation, *Rec.* III, 322; IV, 346; VI, 135, 211;
 VII, 113; VIII, 305.
 rotation *v.* continuous cropping, *Bul.* 2, II,
 152; *Rec.* II, 559; III, 852; IV, 810; VI, 30,
 415, 981; VII, 945; IX, 237; XII, 1030.
 rust, *Rec.* XI, 943.
 salad, varieties, *Rec.* VII, 405.
 sap beetle, notes, *Rec.* III, 702; VII, 43.
 sawfly—
 European, in wheat, *Rec.* I, 277.
 notes, *Rec.* III, 546.
 scorched by hot winds, food value, *Rec.* VIII,
 615.
 screenings, analyses, *Rec.* V, 194; XII, 281.
 seaweed as a fertilizer for, *Rec.* III, 529.
 secondary effect of pollen, *Rec.* XI, 1016.
 seed, *Rec.* II, 479.
 seed—
 from different ears, *Rec.* II, 335.
 different localities, *Rec.* IX, 347, 828;
 XII, 136.
 different parts of the ear, *Bul.* 2, II,
 114; *Rec.* II, 165; III, 857; IV, 807;
 VI, 33; IX, 38, 126, 441, 828.

Corn—Continued.

seed—continued.

- large *v.* small kernels, Rec. III, 856.
- selection, Rec. II, 335; III, 95; IV, 807; X, 137.
- temperature for germination, Rec. XI, 1056.
- treatment with fungicides, Rec. IV, 472.
- vitality as affected by fungicides, Rec. II, 32; IV, 472.

sexual abnormalism in, Rec. VI, 787.

shelled—

- analyses, Rec. X, 474,
- digestibility, Rec. X, 76.

shives, ground, analyses, Rec. X, 477; XII, 281.
(See also CORN PRODUCT, NEW.)

shredded, analyses, Rec. V, 794; VIII, 520.

shredding machine, test, Rec. VII, 944.

shrinkage in storing, Rec. II, 144, 725; VIII, 585; XII, 134.

siftings, analyses, Rec. XII, 378.

silage. (See SILAGE.)

silk, receptivity, Rec. II, 345.

smut—

- creosote for, Rec. III, 858.
- culture experiments, Rec. VII, 694.
- fungicides for, Rec. III, 287, 787.
- for cows, Rec. VIII, 1007.
- notes, Rec. II, 482, 606; III, 127, 172, 287; IV, 50; VI, 559; VII, 411; VIII, 867; XI, 361.
- sporidia, Rec. X, 725.
- studies, Rec. I, 169, 253; VIII, 566; IX, 59, 60, 327, 657, 899; X, 264; XII, 57, 356.
- treatment, Rec. III, 287, 787; V, 59, 61.
- treatment with formaldehyde, Rec. XII, 457, 859.

soaked *v.* dried for—

- pigs, Rec. III, 141, 149; IV, 742; VI, 571.
- steers, Rec. VI, 571.

soaking for pigs, Rec. I, 7; IV, 742; XI, 774, 1070.

soft, analysis, Rec. II, 117.

soil. (See also CORN, PLOWING.)

- preparation, Rec. III, 26; V, 90; VII, 113, 199; VIII, 214.
- studies, Rec. XI, 1100.
- test, Rec. X, 626.
- water available to, Rec. IV, 128.

sprouts, analyses, Rec. X, 474.

squaw, analyses, Rec. XII, 478.

stalk borer—

- notes, Rec. III, 414; VIII, 613.
- smaller, notes, Rec. XII, 362.

stalk disease of cattle, Rec. I, 124; III, 42; IV, 843; VIII, 81, 83, 522; X, 296, 494; XI, 393, 592, 995.

stalk disease of cattle and Burrill disease of corn, Rec. VI, 665.

stalks—

- analyses, Rec. I, 90; III, 127, 296; IV, 136; V, 64, 173; VI, 842; VII, 702, 944; VIII, 491; X, 474, 624; XI, 777.
- as a hay substitute, Rec. V, 499.
- examination for alkaloids, Rec. VIII, 83.

Corn—Continued.

stalks—continued.

- digestibility, Bul. 2, I, 132.
- fertilizing constituents, Bul. 2, I, 133.
- green, sugar content of, Rec. X, 116.
- height, Rec. II, 14.
- loss from weathering, Rec. II, 430.
- reducing and invertible sugar in, Rec. XI, 904.
- sugar content, Rec. VI, 984; VIII, 623; XI, 112.
- utilization, Rec. I, 196; X, 897.
- waste in feeding, Rec. XI, 783, 999.

starch, Rec. II, 589.

starch—

- content, as affected by storing, Rec. XI, 293.
- determination in, Rec. II, 589.
- in wheat flour, detection, Rec. XI, 311.
- steamed *v.* cracked for fattening pigs, Rec. III, 747.

stover—

- analyses, Bul. 2, II, 38, 39; Rec. I, 15; II, 399, 579, 666; III, 14, 157, 288, 379, 380, 690; IV, 64, 177, 733; V, 194, 596; VI, 444; VII, 296, 614, 835; VIII, 331, 426; IX, 786; X, 474, 678; XI, 777, 882; XII, 1077.
- ash, analyses, Rec. VIII, 377.
- digestibility, Rec. IV, 68; X, 477; XII, 370.
- effect on albuminoid consumption, Rec. IV, 69.
- feeding value, Rec. IX, 577; X, 698.
- fertilizing constituents, Bul. 2, I, 133.
- for beef cattle, Rec. VIII, 77.
- cows, Rec. II, 364; III, 153.
- steers, Rec. III, 162.
- loss by exposure, Rec. IX, 346.
- nonalbuminoid nitrogen, Rec. II, 399.
- preservation, Rec. X, 429.
- silage, analyses, Rec. X, 275.
- subsoiling, Rec. II, 551; III, 322; IV, 808; VI, 526; X, 139, 146, 428.
- subsoiling *v.* surface plowing, Rec. IX, 126.
- subsurface packing, Rec. X, 429.
- suckers, effect of removing, Bul. 2, II, 16.
- sugar content, Rec. II, 589; X, 117.
- sweet. (See SWEET CORN.)
- synonymy and history, Rec. VI, 275.
- tile drainage for, Rec. III, 590; VIII, 214.
- tile drained *v.* undrained land for, Bul. 2, I, 107.
- topping, Rec. II, 474; III, 103, 725; IV, 718; IX, 828.
- topping—
 - and stripping, Rec. II, 474, 658; VII, 200.
 - v.* cutting whole stalks, Rec. V, 41.
- tops—
 - analyses, Rec. II, 589; IV, 733; XII, 234.
 - as a feeding stuff, Rec. V, 738.
- undigested, analyses, Rec. XI, 777.
- use in—
 - America, Rec. X, 546.
 - Europe, Rec. III, 484.
- uses, Rec. X, 1089.
- utilization in manufacture, Rec. XI, 733.
- value for heating, Rec. IX, 320.

Corn—Continued.

varieties, **Bul. 2, I, 25, 66, 70; Bul. 2, II, 15, 100; Rec. I, 28, 39, 70, 72, 75, 122, 143, 212, 254, II, 4, 6, 7, 10, 14, 18, 69, 70, 128, 129, 155, 165, 166, 171, 192, 316, 334, 343, 352, 392, 395, 411, 473, 477, 480, 511, 552, 557, 560, 566, 571, 580, 596, 598, 645, 657, 667, 669; III, 25, 39, 85, 94, 131, 198, 280, 322, 361, 453, 480, 589, 606, 625, 703, 713, 743, 802, 847, 850, 852, 858, 860; IV, 108, 136, 138, 251, 339, 411, 644, 718, 721, 766, 783, 807, 809, 810, 904; V, 33, 172, 178, 232, 577, 794, 862, 871, 875, 877, 881, 1074, 1085; VI, 29, 34, 44, 142, 206, 215, 216, 275, 293, 415, 416, 417, 418, 419, 423, 525, 526, 527, 727, 798, 884, 980, 981; VII, 25, 31, 35, 113, 114, 120, 200, 210, 579, 580, 581, 764, 944, 945; VIII, 213, 223, 401, 490, 689, 773, 881, 888, 972, 975; IX, 38, 40, 124, 126, 131, 132, 340, 439, 441, 741, 827, 828, 829, 830, 832, 833; X, 139, 240, 627, 628, 726, 836, 846, 945, 1034; XI, 39, 43, 144, 233, 240, 251, 332, 329, 633, 1030, 1036; XII, 134, 126, 328, 330, 442, 538, 631; 842.**

varieties—

classification, **Rec. XI, 23.**

early, **Bul. 2, II, 15.**

for Kansas, **Bul. 2, II, 15.**

silage, **Bul. 2, II, 14, 23, 37, 76, 100, 113, 121, 152; Rec. I, 29, 95, 140, 165.**

synonymy, **Rec. VI, 275.**

v. alfalfa, **Rec. V, 1071.**

v. barley—

and oats for cows, **Rec. XI, 780.**

for pigs, **Rec. IV, 421, 423; VII, 244, 523; IX, 971; XI, 177.**

v. chicken corn for mules, **Rec. I, 233.**

v. corn-and-cob meal—

for cows, **Rec. XI, 784.**

pigs, **Rec. XI, 968.**

steers, **Bul. 2, I, 187; Rec. I, 210.**

v. corn and grass for pigs, **Rec. III, 149.**

v. corn meal for pigs, **Bul. 2, I, 209; Bul. 2, II, 44, 56; Rec. II, 196; VI, 1010; VIII, 1012; IX, 580; X, 776; XI, 571, 774, 968; XII, 75.**

v. dry-cured fodder corn, **Rec. II, 248, 449.**

v. Kafir corn—

for pigs, **Rec. IX, 975.**

steers, **Rec. I X, 973.**

v. millet as a grain crop, **Rec. III, 868.**

v. palm-nut meal for pigs, **Rec. XI, 70.**

v. peas for—

lambs, **Rec. XI, 666.**

steers, **Rec. XI, 665.**

v. wheat for—

feeding, **Rec. IX, 799.**

pigs, **Rec. VI, 466; VII, 52, 122, 241, 248, 524; VIII, 919.**

poultry, **Rec. XII, 279.**

v. wheat, nutritive value, **Rec. VII, 891.**

waste, analyses, **Rec. IV, 903.**

water required for one pound, **Rec. IV, 126; V, 484.**

weevil—

notes, **Rec. VI, 235, 438; VII, 43.**

repression, **Rec. III, 604.**

Corn—Continued.

weight of ears required for a bushel of shelled corn, **Rec. II, 564.**

weight per legal bushel, **Rec. II, 609.**

white—

analyses, **Rec. XI, 883.**

blast, notes, **Rec. II, 482.**

lecithin content, **Rec. V, 803.**

worm— (*See also* BOLLWORM.)

injuries, **Bul. 2, II, 15.**

notes, **Rec. I, 295; III, 309, 859; IV, 840; V, 402, 592; VI, 151, 314, 315; VII, 141, 878; VIII, 146, 998.**

remedies, **Rec. V, 791; VII, 201; VIII, 69; IX, 70.**

xenia in, **Rec. XI, 1016; XII, 717.**

yellow—

analyses, **Rec. XI, 883.**

lecithin content, **Rec. V, 803.**

yield, **Rec. III, 414; IV, 500, 568, 578, 825.**

yield—

and time of ripening of different varieties, **Rec. VII, 214.**

value, **Rec. II, 608.**

as affected by depth of plowing, **Rec. XII, 432, 442.**

affected by previous manuring, **Rec. VIII, 302; IX, 347.**

affected by witch grass, **Rec. XII, 432.**
compared with sugar beets and mangel-wurzels, **Rec. XII, 632.**

of white and yellow varieties, **Rec. XII, 200.**

per acre, **Bul. 2, II, 114; Rec. II, 14, 19, 117, 477, 480, 491, 559, 563.**

per acre of green fodder, dry matter, and nutrients, **Rec. X, 138.**

variation in, on duplicate plats, **Rec. II, 14.**

zigzag, notes, **Rec. VI, 722.**

Cornaceæ, anatomy of, **Rec. V, 818.**

Cornel sawfly, notes, **Rec. VI, 654.**

Cornu, Maxime, biographical sketch, **Rec. XII, 1002.**

Cornus— (*See also* DOGWOOD.)

asperifolia, notes, **Rec. III, 522.**

candidissima, notes, **Rec. III, 522.**

florida, ash analyses, **Rec. I, 26.**

sanguinea, notes, **Rec. IV, 655.**

sericea, notes, **Rec. III, 522.**

stolonifera, notes, **Rec. III, 522; IV, 655.**

Correlation—

of growth in plants, **Rec. VIII, 566; IX, 421, 810.**

the growth of roots and shoots, **Rec. VI, 379.**

Corrosive sublimate—

and flowers of sulphur for potato scab, **Rec. X, 350.**

as a fungicide, **Rec. V, 490; IX, 1062.**

a preservative for milk, **Rec. II, 331.**

an antiseptic, **Rec. IV, 360.**

an insecticide, **Rec. II, 319.**

effect on—

algæ and fungi, **Rec. XII, 1014.**

germination, **Rec. V, 882.**

for barley smut, **Rec. IX, 145.**

Corrosive sublimate—Continued.

- for bean anthracnose, Rec. IV, 558.
- corn and oat smut, Rec. V, 59.
- disinfecting seed potatoes, Rec. IX, 847.
- grape black rot, Rec. IX, 1062.
- grape disease, Rec. X, 60.
- mold in seeds, Rec. II, 650; III, 395.
- oat smut, Rec. II, 639.
- pea blight and mildew, Rec. X, 447.

for potato—

- diseases, Rec. X, 762.
- rot, Rec. IX, 761.
- scab, Rec. III, 619; IV, 560, 926; V, 308, 591, 787, 789; VI, 228, 379, 937, 910, 1000; VII, 136, 219, 311, 408, 589; VIII, 137, 239, 318, 410, 412, 798, 799; IX, 45, 363, 446, 566, 764, 936; XI, 651.
- wet rot, Rec. IX, 239.

for preserving samples of juice for analysis, Rec. X, 19.

- rose chafers, Rec. III, 171.
- scale insects, Rec. III, 54.
- stinking smut of wheat, Rec. III, 226, 286; IX, 144.
- wheat smut, Rec. II, 221.
- fungicide, fraudulent, Rec. X, 60.
- preparation and use, Rec. V, 206; X, 60.
- stability of aqueous solutions, Rec. VI, 190.
- v. flowers of sulphur for potato scab, Rec. X, 354.

Corthylus—

- columbianus*, notes, Rec. VI, 651; IX, 962; XI, 764.

- punctatissimus*, notes, Rec. IX, 962.

Corticium ferox, notes, Rec. VIII, 867.

Corundum, analyses, Rec. VIII, 377.

Corvus— (See also CROWS.)

- americanus*, notes, Rec. VII, 840.
- frugilegus*—
 - distribution in Germany, Rec. XII, 617.
 - stomach contents, Rec. VIII, 753; XII, 424.

Corya tomentosa, ash analyses, Rec. I, 26.

Coryanthes, insect pollination, Rec. IX, 358.

Corydalis—

- aurca*, notes, Rec. V, 629.
- cava*, alkaloids, Rec. VI, 869.

Corylaceæ—

- anatomy, Rec. VIII, 80, 670.
- embryology, Rec. VI, 195.

Corylus— (See also HAZELNUT.)

- americana*, notes, Rec. III, 521; VIII, 230.
- avellana*, notes, Rec. VIII, 230.
- californica*, notes, Rec. VIII, 230.
- rostrata*, notes, Rec. VIII, 230.
- tubulosa*—

- gall of, Rec. VII, 793.

- notes, Rec. VIII, 230.

Corymbites—

- carcinus*, notes, Rec. VIII, 906.
- cruciatu*, notes, Rec. X, 168.
- sulcicollis*, notes, Rec. III, 450.

Corynetes rufipes, notes, Rec. VIII, 68.*Corythuca*—

- arcuata*, notes, Bul. 2, II, 58.
- ciliata*, notes, Rec. X, 168.
- gossypii*, notes, Rec. X, 168.

Corythuca—Continued.

- irrorata*, injury to chrysanthemums, Rec. X, 570.

Coscinoptera, biological notes, Rec. III, 812.

Cosmical relations of the sun, the aurora, and the terrestrial magnetic field, Rec. VII, 281.

Cosmopepla carnifex, notes, Rec. I, 41; II, 328; IV, 839.

Cosmos—

- blight, notes, Rec. VI, 437.
- insects affecting, Rec. VIII, 504.
- stem blight, notes, Rec. IX, 657.

Cossid borer, notes, Rec. IX, 261.

Cossus, study, Rec. XI, 657.

Cossus—

- ligniperda*, notes, Rec. VII, 700; XII, 158, 166.
- (*Xylcutes*) *robiniae*, notes, Rec. II, 101.
- tristis*, notes, Rec. XI, 760.

Cotalpa lanigera, notes, Rec. IV, 354, 839.

Cottage industries of Russia, Rec. IV, 431.

Cotlea pappophoroides, notes, Rec. III, 548.

Cotton—

- acreage and condition, Rec. III, 53, 107, 183, 253, 632; VII, 259.

- affected by *Oryctes lugubris*, Rec. XI, 1063.

- Allen Hybrid, Rec. XI, 926.

American—

- in India, Rec. VII, 854.
- Turkestan, Rec. VI, 985.

- and cotton goods in Japan, Rec. X, 432.

- angular leafspot, notes, Rec. IV, 834; XII, 434.
- anthracnose, notes, Rec. II, 267, 455, 749; IV, 833; XII, 434.

- aphids on, notes, Rec. V, 63.

- area under cultivation, changes in, Rec. III, 903.

- areolate mildew, Rec. IV, 834.

- ash constituents, Rec. III, 373.

- baling machine, Rec. VII, 432.

- black rot, notes, Rec. II, 267.

black rust—

- control by potash, Rec. XII, 434.

- notes, Rec. III, 7.

- remedies, Rec. XI, 139.

- blight, notes, Rec. VIII, 62.

- boll rot, notes, Rec. VI, 145; XII, 434.

boll weevil—

- eradication, Rec. XI, 273.

- Mexican, Rec. VIII, 912.

- Mexican, in Texas, Rec. VII, 312; X, 159, 659.

- notes, Rec. VI, 1001; IX, 370.

- remedies, Rec. VIII, 142, 912, 1001.

bolls—

- analyses, Rec. III, 538, 541; IV, 720.

- shedding, Rec. IV, 834; XII, 434.

bollworm. (See BOLLWORM.)

botany, Rec. VIII, 687.

by-products, Rec. X, 955.

- breeding, Rec. III, 135; IV, 288; VI, 542; IX, 238; XII, 433.

caterpillar. (See COTTON WORM.)

chemistry, Rec. VIII, 687.

climatology and soils, Rec. VIII, 687.

composts for, Bul. 2, II, 156; Rec. III, 324.

- conditions required for finer grades, Rec. I, 314.

Cotton—Continued.

- continuous cropping *v.* rotation, Rec. III, 535.
 cooperative experiments, Rec. II, 286.
 crop—
 distribution in 1892, Rec. IV, 675.
 of India, Rec. IV, 282, 957; V, 799, 1088; VI, 943; VII, 73.
 statistics, Rec. II, 518, 608, 674; III, 903; IV, 77, 283; V, 328, 798; VI, 582, 943; VII, 164, 259; VIII, 637; IX, 297, 898; XII, 399, 1098.
 crossing, Rec. IX, 238.
 crushed cotton seed *v.* cotton-seed meal for, Rec. XI, 926.
 cultivation, Rec. II, 554, 555, 658; III, 692; VIII, 125; IX, 40; X, 628.
 culture, Rec. II, 550, 553, 657; III, 599, 604; VII, 954; VIII, 687, 974; X, 846; XI, 497; XII, 433.
 culture—
 deep *v.* shallow, Rec. III, 692; X, 628.
 experiments, Rec. III, 599; IV, 787; VI, 807; X, 244, 340; XI, 138, 139, 439; XII, 137, 230, 1036.
 in central Asia, Rec. V, 128.
 Egypt, Rec. VII, 862; IX, 238.
 the German colonies, Rec. XI, 842.
 India, Rec. VIII, 125.
 United States, Rec. IX, 348.
 manual, Rec. XI, 643.
 methods of, Rec. III, 763.
 cutworm, notes, Rec. III, 327.
 dagger, notes, Rec. IV, 354.
 damping off, Rec. IV, 832; XII, 434.
 determination of cellulose and pentosans in, Rec. VIII, 286.
 dirt, analyses, Rec. VII, 294.
 disease, undetermined, Rec. IV, 832.
 diseases, Rec. VIII, 687.
 Egyptian—
 as affected by fog and evaporation from soil, Rec. IX, 348.
 varieties, Rec. VI, 215; XI, 120; XII, 231.
 exhibit of the United States at the Paris Exposition, Rec. XII, 698.
 exports, Rec. XII, 698.
 exports from Egypt, Rec. IX, 297, 397.
 fertilizer experiments, Bul. 2, I, 24, 25, 107; Bul. 2, II, 153, 154, 155, 156; Rec. I, 5, 26, 71, 187, 285; II, 147, 148, 286, 316, 411, 548, 553, 572, 628, 642, 643, 656, 710; III, 285, 323, 534, 540, 604, 684, 691, 693, 762, 763, 874; IV, 138, 340, 346, 716, 718, 720, 803, 814; V, 38, 174, 176, 332, 863, 976; VI, 290, 528, 529, 799, 885; VII, 26, 115, 384; VIII, 41, 42, 125, 487; IX, 40, 126, 127, 634; X, 38, 140, 342, 431, 628; XI, 138, 139, 233, 439, 725, 835; XII, 45, 138, 230, 331, 433, 941.
 fertilizers—
 for, Rec. V, 901.
 methods of applying, Bul. 2, II, 157; Rec. II, 149, 634.
 relation to profit, Rec. X, 131.
 residual effects, Rec. XI, 1030.
 fiber—
 effect of crossing on, Rec. VI, 288.
 studies, Bul. 2, I, 22.

Cotton—Continued.

- field experiments, Rec. IV, 787.
 flowers, coloring matter, Rec. XI, 511.
 frenching, Rec. IV, 831.
 ginning, Rec. V, 175.
Gortyna nitela on, Rec. IV, 373.
 green manuring, Rec. II, 10; III, 535, 762; V, 174; VI, 528, 885; XI, 921.
 gypsum for, Rec. V, 332.
 handling and uses, Rec. VIII, 687.
 history and statistics, Rec. VIII, 687.
 hull ashes—
 analyses, Bul. 2, I, 22, 182; Rec. I, 80, 149, 282; II, 12, 101, 142, 278, 280, 481, 581, 654; III, 6, 8, 162, 299, 318, 444, 764, 864; IV, 26, 336, 337, 902; V, 164, 195, 777, 861; VI, 202, 287, 980; VII, 109, 195, 294; VIII, 117, 389; IX, 538, 1044; X, 230; XI, 438, 528, 719; XII, 130, 225, 626, 931, 933.
 cost of potash from, Bul. 2, I, 39.
 for potato scab, Rec. V, 590.
 tobacco, Rec. IV, 908, 909; V, 863, 865.
 valuation, Rec. IV, 337.
 imports of the United States, Rec. III, 543, 545.
 improvement, Rec. II, 45; VI, 542; XII, 433.
 (See also COTTON BREEDING.)
 industries of Russia, Rec. IX, 397.
 industry in—
 America, Rec. XII, 399.
 Turkestan, Rec. IX, 134.
 Indian, varieties, Rec. VIII, 379.
 in British Central Africa, Rec. VIII, 306.
 injury by *Aretia phyllira*, Rec. IV, 667.
 irrigation experiments, Rec. XII, 842.
 insects—
 affecting, Rec. VIII, 687.
 in Egypt, Rec. XI, 563.
 field, Rec. X, 1063.
 Mississippi, Rec. VI, 563, 1002.
 injurious to, remedies, Rec. V, 517.
 new, in Texas, Rec. VI, 740.
 kainit for, Rec. V, 174, 332, 976; X, 38.
 kainit *v.* phosphate for, Rec. I, 26.
 leaf blight, notes, Rec. III, 844; IV, 835; XII, 434.
 leaves, analyses, Rec. III, 538, 541; IV, 719.
 lint, analyses, Rec. III, 538, 541.
 lintless, culture, Rec. IV, 725.
 manuring, Rec. IV, 814; VIII, 401, 687; IX, 348.
 microscopical study of varieties, Rec. II, 45.
 mildew, notes, Rec. XII, 434.
 mill industry, Rec. XII, 698.
 mite, notes, Rec. IX, 1065.
 monograph, Rec. XII, 941.
 movement and fluctuations, Rec. XII, 399.
 nitrogen experiments, Bul. 2, II, 154.
 notes, Rec. XII, 945.
 on drained and undrained land, Rec. III, 762.
 overproduction, Rec. III, 728.
 pentosans in, Rec. VIII, 286; IX, 225.
 perennial—
 culture experiments, Rec. VI, 808.
 notes, Rec. V, 587.
 phosphates for, Rec. II, 548, 642.

Cotton—Continued.

phosphoric-acid experiments, *Bul.* 2, II, 155.
picking at different dates, *Rec.* V, 175.

plant—

analyses, *Rec.* III, 537, 538, 541; XII, 435.
ash constituents, *Rec.* III, 538, 540.
assimilation of free nitrogen, *Rec.* VIII, 27.
chemistry, *Bul.* 2, I, 173; *Rec.* IV, 719;
VI, 807.

climatology, *Rec.* IV, 762.

development, *Rec.* I, 313.

feeding value, *Rec.* III, 540.

history, *Rec.* XI, 144.

louse. (*See* MELON LOUSE.)

relation of temperature and moisture,
Rec. I, 312.

weight of parts, *Rec.* III, 539.

planting—

at different distances, *Rec.* I, 72; II, 192,
548; III, 535, 693; IV, 139, 813; VI, 207,
528, 530, 885; VIII, 41; IX, 40, 127; X, 38,
139, 342.

condition, *Rec.* IV, 957.

in drills *v.* check rows, *Rec.* III, 324, 535.

methods of, *Bul.* 2, II, 157.

statistics, *Rec.* II, 149, 643, 749; III, 903.

potash experiments, *Bul.* 2, II, 156.

production—

and distribution, *Rec.* IV, 846.

cost of, *Rec.* V, 37; XI, 41.

profit per acre, *Rec.* V, 37.

prospects, 1392, *Rec.* IV, 500.

purslane, notes, *Rec.* X, 343.

red rust, notes, *Rec.* XII, 434.

reduction in price, *Rec.* III, 253.

root galls, *Rec.* IV, 835.

root knot, notes, *Rec.* XII, 434.

root rot—

description, *Rec.* I, 318.

nature and treatment, *Bul.* 2, I, 189.

notes, *Rec.* II, 268, 514, 547.

pure cultures, *Rec.* IV, 400.

repression, *Rec.* II, 547.

rotation for, *Rec.* I, 319.

roots—

analyses, *Rec.* III, 538, 541; IV, 819.

development, *Rec.* I, 314; III, 318.

rot of seedlings, *Rec.* IV, 832.

rotation experiments, *Bul.* 2, II, 157; *Rec.* III,
324, 535; IV, 346; V, 174.

rust—

notes, *Rec.* I, 138; XII, 434.

prevention, *Rec.* X, 1051.

sea-island—

analyses, *Rec.* IX, 1098; XI, 918.

in Florida, *Rec.* VIII, 595.

where produced, *Rec.* I, 314.

Cotton seed—

analyses, *Rec.* II, 50; III, 246, 538, 641, 542; V,
64; VII, 155; VIII, 520; XII, 234, 478.

and cotton cake, poison in, *Rec.* VIII, 155.

apparatus for cleaning, *Rec.* VI, 485.

as a fertilizer, *Rec.* I, 72, 184; II, 473, 552; III,
762; IX, 828; XI, 233, 926.

boiled, for pigs, *Rec.* IV, 358.

bran, analyses, *Rec.* I, 15; VI, 663; VII, 336;
VIII, 810, 1003.

Cotton seed—Continued.

cake—

analyses, *Rec.* VIII, 153, 810; XI, 971.

decorticated, digestibility, *Rec.* IX, 476.

for cows, *Rec.* VI, 160.

influence on butter fat, *Rec.* VIII, 161.

rancid, *Rec.* VIII, 154.

digestibility, *Rec.* IV, 736.

disease in animals, *Rec.* XI, 592.

effect on—

butter, *Rec.* II, 296; X, 685.

creaming of milk, *Rec.* III, 97.

feed—

analyses, *Rec.* IV, 935; VI, 1014; VII, 702;
XII, 169.

as a feeding stuff, *Rec.* VII, 581.

digestibility, *Rec.* VI, 1015.

for cows, *Rec.* VI, 1014; VII, 152, 985; VIII,
1021; X, 680.

fertilizer, analyses, *Rec.* II, 581.

fertilizing value, *Rec.* III, 762; VII, 704.

for calves, *Rec.* I, 233.

cows, *Rec.* II, 363; III, 166; VI, 1014; VII,
152, 985; VIII, 1021; XI, 1079.

farm animals, *Rec.* VII, 337.

pigs, *Rec.* IV, 357; VII, 981; XI, 1072.

steers, *Rec.* I, 153; III, 284; IV, 254; V,
923; VII, 985; VIII, 427; XI, 397, 1068;
XII, 475, 670, 698.

from bottom and top bolls, *Rec.* V, 175.

different localities, *Rec.* IX, 40.

gossypol in, *Rec.* XI, 510.

hulls—

analyses, *Bul.* 2, I, 82; *Rec.* I, 136, 282, 315;
II, 50, 315, 514, 744; III, 246, 542; VI, 274,
331, 797; VIII, 810.

and dry sand for storing sweet potatoes,
Rec. IX, 695.

meal for beef production, *Rec.* VIII,
924.

meal for cattle, *Rec.* II, 176; V, 686;
VI, 921.

meal for steers, *Rec.* III, 710, 711; V,
602; VII, 702; IX, 269; XII, 473.

as a feeding stuff, *Rec.* I, 315; II, 176, 317;
VIII, 331.

boiled and roasted for steers, *Rec.* V, 602.

digestibility, *Rec.* III, 246, 452, 712; IV, 736.

for beef production, *Rec.* V, 686; VIII,
924.

cows, *Rec.* V, 196.

fattening, *Rec.* I, 9.

mulching strawberries, *Rec.* V, 300.

steers, *Rec.* I, 9, 153; III, 284; IV, 254.

manurial residue from, *Rec.* III, 452.

utilization for paper making, *Rec.* XII,
694.

v. corn silage and hay for cows, *Rec.* V, 501.

industry, *Rec.* VIII, 348; XII, 1098.

northern *v.* southern grown, *Rec.* II, 10.

products—

analyses, *Bul.* 2, I, 173.

feeding, *Rec.* VII, 581.

feeding value, *Rec.* VIII, 687.

value, *Rec.* XI, 294.

proteids of, *Rec.* V, 1081; VI, 163, 376.

Cotton seed—Continued.

raw—

- for steers, Rec. V, 602.
- v. roasted for pigs, Rec. IV, 358.
- steamed for cows, Rec. IV, 259.

roasted—

- analyses, Rec. V, 64.
- digestibility, Rec. IV, 736.
- meal from, Rec. V, 64.

steamed v. raw for butter production, Rec. V, 974.

tests, Rec. X, 37.

value to the farmer, Rec. XI, 1069.

v. cotton-seed cake for sheep, Rec. VIII, 244.

v. cotton-seed meal—

- and hulls for corn, Rec. III, 606.
- as a fertilizer, Rec. III, 763.
- for corn, Rec. VIII, 882.

oats and wheat, Rec. IV, 915.

v. cotton-seed products for steers, Rec. X, 673.

Cotton-seed meal—

adulteration, Rec. II, 261; III, 9; XI, 278.

alkaloids in, Rec. IX, 805.

American v. German, Rec. IX, 1079.

analyses, Bul. 2, I, 22, 83, 182; Bul. 2, II, 38; Rec. I, 15, 17, 80, 136, 149, 197, 198, 255, 315; II, 50, 101, 133, 142, 243, 275, 280, 295, 340, 481, 504, 514, 581, 589, 645, 666, 667; III, 6, 8, 9, 13, 157, 244, 288, 296, 299, 301, 318, 357, 401, 444, 542, 616, 764, 864, 878; IV, 25, 26, 64, 173, 176, 177, 336, 569, 787, 902, 935; V, 165, 194, 195, 288, 410, 737, 777, 861, 976, 1103; VI, 163, 287, 331, 396, 401, 402, 444, 522, 663, 797, 842, 980, 1008; VII, 109, 111, 155, 195, 294, 295, 336, 614, 668, 670, 720, 835, 854; VIII, 117, 299, 389, 392, 426, 508, 520, 561, 584, 623, 714, 719, 767, 768, 810, 1003; IX, 339, 436, 538, 638, 739, 939, 1044; X, 194, 230, 275, 428, 623, 1031; XI, 39, 138, 279, 381, 528, 719, 777, 882, 917, 971, 1026; XII, 70, 129, 131, 169, 225, 234, 281, 282, 378, 472, 586, 587, 717, 877, 907, 931.

and crab-grass hay, digestibility, Rec. VIII, 511.

and hulls—

- digestibility, Rec. VII, 703.
- for beef cattle, Rec. VII, 413, 703.
- steers, Rec. III, 710, 711; V, 602; VII, 702; IX, 269; XII, 473.

v. cotton seed for corn, Rec. VI, 884.

and linseed meal for pigs, Rec. VIII, 325.

as a fertilizer, Rec. I, 68, 72, 189; II, 146, 325, 473, 552, 628; IV, 25, 173, 814, 908, 915; V, 174, 487, 863, 976, 1071; VI, 542; VII, 26, 208; IX, 41, 544, 828; X, 38; XI, 233, 926.

feeding stuff, Rec. I, 315; V, 129, 258, 293, 439.

available phosphoric acid in, Rec. IV, 901; V, 288.

availability for—

- grass, Rec. XI, 722; XII, 527.
- Hungarian grass, Rec. XII, 528.

cost—

- and valuation, Bul. 2, I, 53.
- of nitrogen from, Bul. 2, I, 39.

decorticated, analyses, Rec. VIII, 810,

decorticated v. undecorticated for feeding, Rec. III, 579.

Cotton-seed meal—Continued.

determination of phosphoric acid, Rec. II, 92; IV, 902.

digestibility, Bul. 2, I, 132; Rec. III, 452, 712; V, 1032.

effect on—

- beef tallow, Rec. VI, 325.
- butter, Rec. II, 296; III, 469; V, 724, 974; VI, 324; XII, 798.

fat content of milk, Rec. V, 824, 917.

germination of wheat, Rec. X, 349.

lard and suet, Rec. VI, 324.

yield of milk, Rec. III, 469; V, 968.

examination, Rec. V, 1021.

fertilizing constituents, Bul. 2, I, 133.

for calves, Rec. VI, 922.

cattle, Rec. II, 176; V, 686.

cows, Bul. 2, II, 43; Rec. II, 362; III, 19, 166, 287, 288, 564; IV, 64, 65, 66, 259; VIII, 526; IX, 879; XI, 280, 1079.

horses, Rec. VI, 921.

lambs, Rec. V, 502.

pigs, Rec. I, 63; IV, 357; VI, 922; VII, 800; VIII, 325; XII, 375.

sheep, Rec. III, 572.

steers, Rec. I, 153; III, 284, 391, 572; IV, 254; IX, 168; XI, 1068; XII, 672.

industry, statistics, Rec. VI, 400.

manurial residue from, Rec. III, 452.

metaphosphoric acid and pyrophosphoric acid in, Rec. IV, 902.

poisoning of—

- calves, Rec. V, 825; VII, 252.
- cattle, Rec. V, 733, 825.

potash in, Rec. V, 289.

v. corn-and-cob meal for pigs, Rec. VII, 607.

v. gluten meal for—

- butter production, Rec. III, 86.
- cows, Rec. IX, 881.

v. linseed meal for lambs, Rec. IV, 261.

v. soy-bean meal for cows, Rec. VII, 150.

v. wheat bran for—

- butter production, Rec. V, 72.
- cows, Rec. III, 468.

water-soluble potash in, Rec. IV, 901.

with corn silage and soy-bean silage for beef, Rec. V, 687.

Cotton-seed oil—

adulteration, Rec. XI, 814.

and meal, statistics, Rec. VII, 719.

olive oil, differentiation, Rec. XI, 23.

as a butter adulterant, Rec. XI, 83.

a substitute for linseed oil, Rec. XII, 694.

food, Rec. XI, 672.

characteristic reaction, Rec. X, 315.

detection, Rec. XII, 108.

detection—

- Boemer's method, Rec. XII, 214.
- Halphen color test, Rec. XII, 612.
- in butter, Rec. XI, 1007.

lard, Rec. IV, 986; V, 258; VI, 15; VII, 273; X, 608; XI, 811.

mixtures, Rec. X, 118; XI, 811.

olive oil, Rec. IV, 986; X, 413.

drying properties of crude and refined, Rec. X, 194.

effect on butter, Rec. IV, 664; V, 974.

Cotton-seed oil—Continued.

- mills, construction and operation, Rec. XI, 294.
- notes, Rec. XI, 294.
- occurrence of chlorin and absence of sulphur, Rec. XI, 619.
- purification, Rec. VII, 719.
- sulphur in, Rec. VII, 364; XI, 619.
- use in paints, Rec. X, 194.

Cotton—

- soil preparation, Rec. VI, 402; VII, 115.
- sore shin—
 - or damping off, notes, Rec. XII, 434.
 - studies, Rec. IV, 832.
 - (See also COTTON, DAMPING OFF.)
- spinning—
 - evolution, Rec. IX, 135.
 - favorable atmospheric conditions, Rec. XII, 831.
- stainer—
 - food plants, Rec. X, 571.
 - notes, Rec. II, 101.
- stalk fiber, notes, Rec. VI, 207.
- stalks, burrs, and leaves, analyses, Rec. III, 538, 541; IV, 719; V, 64.
- statistics, Rec. III, 903; VII, 259; X, 846; XII, 143.
- “stearin” and maize oil, Rec. V, 441.
- subsoiling, Rec. XI, 139.
- sulphate of potash and tankage for, Rec. X, 628.
- superphosphate v. raw-bone meal for, Rec. IX, 127; X, 140.
- top grass, notes, Rec. X, 343.
- topping, Bul. 2, II, 157; Rec. II, 554; III, 324, 535, 692; X, 38.
- trade schools in the South, Rec. XII, 198.
- treatise, Rec. XII, 45.
- upland, analyses, Rec. XI, 918.
- varieties, Bul. 2, I, 25; Bul. 2, II, 152; Rec. I, 7, 70, 72, 123; II, 9, 10, 45, 147, 149, 192, 316, 410, 513, 548, 553, 555, 572, 629, 643, 657; III, 285, 322, 533, 684, 693, 702, 762, 763, 800, 875; IV, 139, 340, 411, 718, 719, 720, 813; V, 175, 176, 863; VI, 206, 215, 288, 527, 529, 530, 800, 884, 898; VII, 115, 384; VIII, 41, 125, 379, 401, 687, 689; IX, 40, 127, 944; X, 37, 139, 342, 348, 628; XI, 120, 138, 139, 144, 240, 438, 439, 926, 1032, 1036; XII, 137, 229, 231, 433, 841, 844, 849.
- varieties—
 - Egyptian, Rec. VI, 215; XI, 120; XII, 231.
 - microscopical study of, Rec. II, 45.
- waste, analyses, Rec. III, 530; IV, 26; V, 290; VI, 287; VII, 111, 294; VIII, 117; IX, 336, 339, 825, 939; XII, 225, 226, 626, 933.
- wilt, notes, Rec. XI, 944; XII, 434.
- world's supply and consumption, Rec. VI, 87.
- worm—
 - enemies, Rec. II, 319.
 - insecticides for, Rec. II, 193, 296, 318; III, 282.
 - moth on grapes, Rec. XII, 69.
 - notes, Bul. 2, I, 176; Rec. II, 14, 101, 198, 240, 296, 318; III, 175, 282; V, 63, 517; IX, 370.
 - remedies, Rec. II, 318; VI, 1002.
- yellow leaf blight, Rec. IV, 830.
- yield, Rec. III, 414.
- yield from bottom and top bolls, Rec. III, 763.

Cottonhead wood, analyses, Rec. II, 491.

Cottontail rabbit botfly, Rec. V, 327; VIII, 607; IX, 469.

(See also CUTEREBRA LEPUSCULI.)

Cottonwood—

- American, notes, Rec. XII, 559.
- beetle—
 - notes, Rec. I, 12.
 - striped, remedies, Rec. VIII, 415.
- black, notes, Rec. III, 521.
- broad-leaf, notes, Rec. XI, 1051.
- dagger-moth, notes, Rec. II, 116.
- foliage, effect of arsenites, Rec. II, 200.
- fungus disease, Rec. XII, 574.
- leaf beetle—
 - enemies, Rec. II, 116.
 - in New York, Rec. VI, 564.
 - notes, Rec. II, 116, 663, 664; V, 206.
 - remedies, Rec. IX, 70; X, 269, 467.
 - streaked, notes, Rec. I, 21, 232.
- leaf miner, Rec. IX, 670.
- narrow-leaf, notes, Rec. XI, 1051.
- notes, Rec. I, 253, 315; II, 741; III, 521; IV, 655; VI, 425, 993; VIII, 604; XI, 858; XII, 1049.
- plant lice on, Rec. III, 182; X, 164.
- rate of growth, Rec. IV, 45.
- scale—
 - insects, Rec. VI, 440, 740.
 - notes, Rec. VIII, 146.
- Cotula vulgaris*, notes, Rec. III, 598.
- Cotyledon ventricosa* as a cause of disease in goats, Rec. XI, 493.
- Cotyledons, growth, Rec. IX, 422.
- Couch grass—
 - analyses, Rec. VI, 404.
 - eradication, Rec. VIII, 703, 704; XI, 749.
 - notes, Rec. IV, 47, 472, 591, 699; V, 529; VII, 384; X, 432.
- Country road bridges, Rec. VI, 943.
- Courland soils, examinations, Rec. VI, 513.
- Court noué of grapes, notes, Rec. XII, 260, 464.
- Courtrai, Belgium, agricultural and hygienic laboratory, Rec. V, 555.
- Cover crops—
 - for green manure, Rec. XI, 538.
 - orchards, Rec. XII, 449.
- Cover glasses, fixing films, Rec. XI, 714.
- Cow— (See also COWS.)
 - amount of land required to soil, Rec. V, 644.
 - barn. (See also DAIRY BARNs.)
 - description, Rec. XI, 294.
 - feeding and work schedule, Rec. IX, 1088.
 - plans, Rec. V, 261.
 - cabbage, varieties, Rec. XI, 632.
 - cockle, notes, Rec. V, 306; VIII, 703, 794; IX, 453, 758, 846; X, 760.
 - culture, Rec. VIII, 731.
 - fced, analyses, Rec. VI, 153.
 - in relation to public health, Rec. VI, 335.
 - manure—
 - amount voided daily, Rec. II, 592.
 - analyses, Rec. III, 764; V, 142, 143, 524; XII, 322.
 - bacteria in, as affected by food, Rec. VII, 942.
 - experiments, Rec. V, 523.
 - production, Rec. IV, 65, 66; V, 388.
 - value, Rec. III, 91; XII, 927.

Cow—Continued.

- salad, analyses, **Rec. VIII**, 520.
- shed, model, **Rec. IX**, 1097.
- stables, **Rec. V**, 261; **XII**, 388.
- stables, fittings, **Rec. IX**, 897.
- stalls—
 - and ties, **Rec. XI**, 389.
 - ventilation, **Rec. VII**, 797.
- urine, experiments, **Rec. V**, 523.
- wheat, analyses, **Rec. IV**, 971, 972.

Cowbane—

- poisoning from, **Rec. VII**, 588.
- spotted, **Rec. VIII**, 892.

Cowbird, as an enemy of the locust, **Bul. 2, II**, 93.Cowbirds, food habits, **Rec. XII**, 828.

Cowpea—

- and cornfield, grazing with steers, **Rec. XI**, 965.
- soy-bean plants, analyses, **Rec. XII**, 933.
- blight, **Rec. V**, 790.
- fodder—
 - analyses, **Rec. IX**, 786; **XI**, 882.
 - digestibility, **Rec. VIII**, 423.
 - globulin, analysis, **Rec. IX**, 518.

hay—

- and cotton seed for steers, **Rec. VI**, 923; **VIII**, 427.
- curing and storing, **Rec. VI**, 215, 252.
- feeding value, **Rec. XI**, 1076.
- for steers, **Rec. VI**, 240, 923.
- stack frame for, **Rec. VI**, 252.

leaves and vines, analyses, **Rec. VII**, 299.meal, analyses, **Bul. 2, I**, 182.origin and botanical affinities, **Bul. 2, I**, 61.

plant—

- composition, **Rec. III**, 319.
- relation of parts, **Rec. III**, 318.

pods, analyses, **Bul. 2, I**, 181.proteids, **Rec. IX**, 517.

roots—

- analyses, **Bul. 2, I**, 181; **Rec. II**, 141; **III**, 319.
- value of fertilizing ingredients, **Rec. II**, 142.

silage, **Rec. II**, 270; **X**, 847.

silage—

- analyses, **Rec. III**, 157; **V**, 794; **VIII**, 508.
- digestibility, **Rec. VIII**, 510.

southern culture experiments, **Bul. 2, I**, 88.stubble, analyses, **Rec. III**, 319.vignin of, analyses, **Rec. VIII**, 520; **IX**, 518.

vines—

- analyses, **Bul. 2, I**, 181; **Rec. I**, 198; **II**, 141, 170; **III**, 319, 375; **V**, 64, 794, 875; **VI**, 294, 444, 842; **VII**, 614, 702; **VIII**, 426; **IX**, 682.
- digestibility, **Rec. IV**, 736.
- loss of nitrogen from exposure, **Rec. II**, 142.
- value of fertilizing ingredients, **Rec. II**, 142.

weevil—

- Chinese, notes, **Rec. VIII**, 610.
- notes, **Rec. IX**, 854; **XI**, 470.
- parasites, **Rec. X**, 571.
- wilt disease, **Rec. XI**, 944.

Cowpeas—

- analyses, **Bul. 2, I**, 214; **Bul. 2, II**, 73; **Rec. II**, 50, 114, 170, 200; **V**, 171, 292, 488, 596; **VII**, 295; **VIII**, 520, 810; **X**, 474, 678, 946; **XI**, 777, 1076; **XII**, 378.

and corn—

- culture, **Rec. XII**, 232.
- culture experiments, **Rec. IV**, 36.

and millet, analyses, **Rec. XII**, 442.soy beans, notes, **Rec. XII**, 1037.as a cover crop for orchards, **Rec. X**, 251.fertilizer for sugar cane, **Rec. I**, 67.fertilizing crop, **Rec. II**, 141, 191, 478.forage crop, **Rec. II**, 170; 580; **III**, 319, 376; **V**, 293; **XII**, 45.silage crop, **Rec. II**, 270.source of nitrogen, **Rec. XII**, 1035.trap crop for cotton bollworms, **Rec. IV**, 204.

as green manure for—

cotton, **Rec. III**, 535.wheat, **Rec. IV**, 912.ash, analyses, **Rec. XI**, 231.cost of seeding, **Rec. II**, 473.cross fertilization, **Rec. VIII**, 42.culture, **Rec. VIII**, 885; **IX**, 241, 551; **X**, 542; **XI**, 497.

culture—

- experiments, **Bul. 2, I**, 61; **Rec. I**, 122, 254; **II**, 580, 643; **III**, 82, 696; **IV**, 38, 248, 661; **V**, 171, 176, 577; **VI**, 35, 212, 294, 542, 828, 898; **VII**, 296; **VIII**, 401, 490, 687, 970; **IX**, 41, 551; **X**, 340, 480; **XI**, 339; **XII**, 435, 849, 1036.

for soiling, **Rec. IV**, 29, 480.in Arkansas, **Rec. XII**, 634.India, **Rec. V**, 333.curing for fodder, **Rec. XI**, 497.digestibility, **Rec. I**, 143; **II**, 170; **XII**, 872.disease, notes, **Rec. X**, 362.ensiling, **Rec. X**, 847.fertilizer experiments, **Bul. 2, II**, 124; **Rec. I**, 27; **V**, 577, 778, 779, 780; **VI**, 402, 530, 801, 802; **VIII**, 398; **IX**, 746; **XI**, 837; **XII**, 435, 849, 1028, 1029.

fertilizing—

constituents, **Rec. II**, 170.value, **Rec. VI**, 45.food value at different stages, **Rec. V**, 488, 489.for forage, **Rec. XII**, 332.green manuring, **Rec. III**, 535; **IV**, 912; **V**, 174, 776; **VI**, 528, 538, 794, 803, 885; **VII**, 668; **VIII**, 42, 969; **X**, 35; **XI**, 254.orchards, **Rec. V**, 874; **IX**, 950.pigs, **Rec. IX**, 273; **X**, 578.soil improvement, **Rec. XI**, 232.irrigation experiments, **Rec. XII**, 842.liming experiments, **Rec. XII**, 625.notes, **Bul. 2, II**, 23; **Rec. II**, 200, 271, 337, 601; **IX**, 41; **XI**, 239, 339; **XII**, 134, 230, 329, 337, 539, 843, 943.value, **Rec. IX**, 551; **X**, 42; **XI**, 145.varieties, **Rec. I**, 75, 143; **II**, 149, 156; **IV**, 145, 411, 645; **V**, 176, 779, 780, 908; **VI**, 35, 215, 530, 802, 803; **VII**, 121; **X**, 348; **XI**, 1036; **XII**, 435.

yield—

and composition at different periods of growth, **Rec. VI**, 45.as affected by the weather, **Rec. XII**, 436.

Cowpox—

- notes, **Rec. XI**, 995; **XII**, 488, 885.
virus, history of culture at the Utrecht Veterinary Institution, **Rec. XI**, 693.

Cows—

- Aberdeen, composition of milk, **Rec. III**, 357.
abortion. (*See* ABORTION.)
age as affecting composition of milk, **Rec. VI**, 456; **VII**, 336; **X**, 892; **XII**, 879.
Alderney, in Germany, **Rec. IV**, 223.

alfalfa—

- for, **Rec. III**, 131; **VII**, 57; **VIII**, 627, 634; **X**, 295; **XII**, 783.
forage for, **Rec. VII**, 57.

- alfalfa hay *v.* mixed hay for, **Rec. VIII**, 627.
almond oil for, **Rec. X**, 686; **XI**, 587.

American Holderness. (*See* COWS, HOLDERNESS.)

- American, milk record, **Rec. V**, 824.
and goats, comparative digestive power, **Rec. IV**, 738.

Angler, tests, **Rec. VI**, 475; **IX**, 882.apple pomace for, **Rec. II**, 666.aphthous affection, **Rec. III**, 223."Astor" for, **Rec. VIII**, 536.Atlas meal *v.*—

- corn meal and bran for, **Rec. VIII**, 1020; **IX**, 879.
cotton seed and linseed meals for, **Rec. IX**, 879.

Ayrshire—

- composition of milk, **Rec. V**, 945.
for butter and cheese production, **Rec. V**, 319.
management, **Rec. XI**, 788.
tests, **Bul. 2**, **II**, 95; **Rec. II**, 162, 241, 403, 404, 499, 647; **III**, 19, 301, 311, 312; **IV**, 255, 263, 268, 273; **VI**, 457, 1014; **VII**, 45; **VIII**, 634; **IX**, 882; **XI**, 983.

bananas for, **Rec. VIII**, 440.

barley—

- and oats *v.* corn for, **Rec. XI**, 780.
oats *v.* wheat for, **Rec. VIII**, 256.
straw for, **Rec. VII**, 320.

barley meal for, **Rec. VI**, 160.barn feeding *v.* pasture, **Rec. III**, 477.bean meal for, **Rec. VI**, 160.beet chips, dried for, **Rec. VI**, 241.

beet diffusion residue—

- and potato residue for, **Rec. III**, 562.
for, **Rec. III**, 561.

v. Tankard beets for, **Rec. IX**, 173.beet molasses for, **Rec. IX**, 789.

beet pulp—

- for, **Rec. III**, 561; **XII**, 90, 878.
silage *v.* beets for, **Rec. IX**, 173.

beets—

- and clover silage for, **Rec. IX**, 383.
marsh-grass silage for, **Rec. IX**, 383.
for, **Rec. VII**, 616; **VIII**, 528; **IX**, 282; **X**, 184.
v. carrots for, **Rec. VIII**, 1020.

Bermuda hay—

- for, **Rec. II**, 362; **III**, 166; **IV**, 259.
v. timothy hay for, **Rec. III**, 166, 875; **IV**, 259.

Cows—Continued.

- breed tests, **Bul. 2**, **II**, 95; **Rec. I**, 258, 269, 321; **II**, 162, 241, 243, 359, 364, 403, 404, 499, 592, 647; **III**, 19, 296, 301, 311, 362; **IV**, 255, 263, 268, 273, 403; **V**, 1052, 1060, 1064; **VI**, 457, 1013; **VII**, 45, 46, 47, 337; **VIII**, 634; **IX**, 688, 882; **XI**, 284, 888; **XII**, 90.

breeding, **Rec. II**, 711; **XII**, 786.

breeding—

- and care, **Rec. XI**, 1084.
for rich milk, **Rec. V**, 655, 1053; **VI**, 573.
statistics, **Rec. IV**, 359.

breeds, **Rec. XI**, 982.breeds, mountain, richness of milk, **Rec. XI**, 185.brewers' grains for, **Rec. IV**, 66; **VI**, 160; **X**, 589; **XI**, 81.brewery residue *v.* peanut meal for, **Rec. XI**, 81.Brown Swiss, tests, **Rec. XII**, 983; **XII**, 90.buckwheat middlings for, **Rec. X**, 589.Buffalo gluten meal for, **Rec. V**, 316, 1065.butter tests, **Rec. VIII**, 436.butter tests a criterion of value, **Rec. V**, 597.buying and selling, **Rec. VII**, 422.cabbage for, **Rec. VI**, 460.care, **Rec. X**, 492.carrots for, **Rec. VIII**, 1019.castor-bean meal for, **Rec. XII**, 589.cat-tail millet for, **Rec. V**, 1081.Cerealine for, **Rec. X**, 589.changes in live weight during period of lactation, **Rec. IV**, 223.

Chicago gluten meal—

- v.* Atlas meal for, **Rec. VIII**, 429.

King gluten meal for, **Rec. VIII**, 428.Chicago maize feed for, **Rec. VII**, 972.churning and creaming tests, **Rec. IV**, 489.clover, green, for, **Rec. III**, 131.

clover hay—

- and sunflowers for milk production, **Rec. V**, 634.

for, **Rec. III**, 217.*v.* sour grass hay for, **Rec. X**, 1083.clover silage for, **Rec. IX**, 383.cocoanut cake for, **Rec. III**, 67; **XI**, 1084.cocoanut oil for, **Rec. X**, 686; **XI**, 587.conformation, **Rec. XI**, 86, 188, 888.(*See also* COWS, TYPE.)conformation, relation of, to production, **Rec. VIII**, 634; **IX**, 879; **X**, 689.control of productive capacity, **Rec. IX**, 1088.cooking and steaming food for, **Rec. IV**, 783.

corn—

- for, **Rec. II**, 666; **IX**, 789.

v. barley and oats for, **Rec. XI**, 780.corn-and-cob meal for, **Rec. XI**, 784.corn-and-cob meal for, **Rec. III**, 219, 222; **XI**, 1079.corn bran for, **Rec. V**, 73.corn by-products for, **Rec. V**, 316.

corn fodder—

- and straw for, **Rec. VIII**, 930.
for, **Rec. II**, 666; **III**, 153, 216, 222, 473; **IV**, 65; **VI**, 158, 460.

early, medium, and late cut, for, **Rec. VI**, 157.

Cows—Continued.

- corn fodder—continued.
 - shredded, dry *v.* wet, with grain, for, Rec. VIII, 1004.
 - stover, and silage as a substitute for hay for, Rec. I, 222; II, 572.
 - v.* corn silage for, Bul. 2, I, 161, 192, 196; Rec. II, 240, 440, 666; IV, 178, 481; V, 316; VI, 453; IX, 790.
 - hay for, Bul. 2, I, 74; Rec. VIII, 930.
 - sugar beets for, Rec. II, 247.
 - with and without ears, for, Rec. V, 313.
- corn germ feed for, Rec. V, 73, 316.
- corn meal—
 - and bran for, Rec. III, 86; V, 72; VIII, 1020.
 - bran *v.* Atlas meal for, Rec. IX, 879.
 - for, Bul. 2, II, 43, 80; Rec. II, 362, 363, 592; III, 19, 153, 166, 287, 592; IV, 260; V, 1081; VIII, 335; XI, 999.
 - v.* wheat bran and linseed meal for, Rec. V, 887; VIII, 335.
 - wheat meal for, Rec. VIII, 825.
- corn oil—
 - for, effect on butter, Rec. IV, 664; V, 974.
 - cake for, Rec. VIII, 1020.
- corn silage—
 - and alfalfa fodder for, Rec. VII, 57.
 - as a substitute for hay and roots for, Rec. IV, 410.
 - for, Rec. V, 500; VII, 57; VIII, 160; XII, 678.
 - from frost-bitten corn for, Rec. II, 666.
 - from Southern *v.* Maine grown corn for, Rec. I, 96; VI, 747.
 - v.* beets for, Rec. V, 887; VIII, 1019.
 - carrots for, Rec. VIII, 1019.
 - clover silage for, Rec. IV, 482.
 - corn stover for, Bul. 2, I, 74; Rec. I, 77; IV, 176.
 - cowpea and soy-bean silage for, Rec. IX, 883.
 - green corn fodder for, Rec. V, 316.
 - hay for, Rec. II, 645, 663.
 - Hungarian-grass silage for, Rec. II, 666.
 - potatoes for, Rec. IX, 883.
 - Robertson mixture for, Rec. VIII, 85, 86.
 - roots for, Bul. 2, I, 74; Rec. I, 77, 222; II, 572.
 - sugar beets for, Rec. II, 247.
 - with and without ears for, Rec. V, 313, 500.
- corn smut for, Rec. VIII, 1007.
- corn stover—
 - butts *v.* tops for, Rec. II, 666.
 - for, Rec. II, 364; III, 153.
 - v.* hay for, Rec. II, 666.
- cost of—
 - food at different periods of lactation, Rec. VI, 69.
 - keeping when dry, Rec. VI, 752.
 - milk and butter production in Georgia, Rec. XII, 982.
 - milk production, Rec. II, 575; XI, 784.
 - raising, Rec. XI, 178.
- cotton seed—
 - for, Rec. II, 363; III, 166; VI, 1014; VII, 152, 985; VIII, 1021; XI, 1079.

Cows—Continued.

- cotton seed—continued.
 - raw, roasted, and steamed, for, Rec. III, 166, 875.
 - raw *v.* steamed, for, Rec. IV, 259.
 - v.* corn-and-cob meal for, Rec. XI, 1079.
 - cotton-seed meal for, Rec. XI, 1079.
- cotton-seed and sesame-oil cake for, Rec. X, 685.
- cotton-seed cake for, Rec. VI, 160.
- cotton-seed feed—
 - as a substitute for hay, Rec. X, 679.
 - for, Rec. II, 363; III, 166; VI, 1014; VII, 152, 985; VIII, 1021; X, 680; XI, 1079.
 - v.* corn meal and bran for, Rec. VIII, 1021.
- cotton-seed hulls—
 - and meal for, Rec. VI, 921.
 - for, Rec. V, 196.
 - v.* corn silage and hay for, Rec. V, 501.
- cotton-seed meal—
 - and corn meal for, Bul. 2, II, 43.
 - for, Bul. 2, II, 43; Rec. II, 362; III, 19, 166, 287, 288, 564; IV, 64, 65, 66, 259; VIII, 526; IX, 879; XI, 280, 1079.
 - v.* corn-and-cob meal for, Rec. XI, 1079.
 - gluten meal for, Rec. III, 86; IX, 881.
 - soy-bean meal for, Rec. VII, 150.
 - wheat bran for butter production, Rec. III, 468; V, 72.
- cowpea silage for, Rec. VIII, 527.
- cream gluten meal for, Rec. V, 73, 316.
- crimson-clover hay for, Rec. V, 1081.
- cripple disease, Rec. VII, 805.
- daily variation in milk and butter production, Rec. III, 216.
- Danish, Rec. VII, 708.
- dehorning, Rec. III, 617, 795; V, 204; VII, 56.
- development, Rec. X, 492; XII, 592, 1082.
- Devon, tests, Rec. IV, 255, 263, 268, 273; VI, 1014; VII, 45; VIII, 634; XI, 983.
- Dexter Kerry, tests, Rec. II, 401.
- digestion experiments, Bul. 2, I, 157; Rec. II, 429, 591; III, 452; IV, 733, 736; V, 1081; VII, 614; IX, 788; X, 1082.
- disease of external sexual organs, Rec. I, 126.
- distomatosis of the abdominal walls, Rec. XI, 289.
- dry *v.* wet feed for, Rec. II, 364; VII, 704; VIII, 1004.
- Durham Polled, tests, Rec. XI, 983.
- Dutch—
 - production of milk and fat, Rec. V, 1064.
 - tests Rec. VII, 50; XI, 888.
- Dutch Belted, tests, Rec. XI, 983.
- economic feeding, Rec. VIII, 440.
- economical foods for, Rec. XI, 983.
- effect of—
 - care on milk production, Rec. V, 823.
 - change from barn to pasture on quantity and quality of milk, Rec. III, 477; V, 317; VI, 926; XII, 385.
 - cotton seed and cotton-seed meal on butter production and quality, Rec. II, 296.
 - cotton seed and cotton-seed meal on creaming of milk, Rec. III, 97.
 - cotton seed and cotton-seed meal on quality of butter, Rec. IV, 259.

Cows—Continued.

effect of—continued.

- drought on milk production, *Rec. VIII*, 825; *X*, 295.
- drought on quality of milk, *Rec. XI*, 676.
- fatigue on quantity and quality of milk, *Rec. VIII*, 86, 337; *XI*, 384; *XII*, 285.
- feed and temperature on quantity and quality of milk, *Rec. V*, 598.
- feed on composition of butter, *Bul. 2, I*, 160; *Rec. XI*, 888.
- feed on hardness of butter, *Rec. III*, 86.
- feed on milk and butter, *Bul. 2, I*, 159.
- feed on quality of butter, *Rec. IV*, 569, 662; *VI*, 460; *VIII*, 527, 528; *IX*, 884; *X*, 685.
- feed on quality of milk, *Rec. II*, 277; *III*, 219; *IX*, 255, 519, 601; *VI*, 461; *VII*, 973; *VIII*, 256, 335, 627; *IX*, 282, 683, 984; *X*, 584, 588; *XI*, 484, 587, 675, 1081; *XII*, 678, 679.
- feed on quality of milk and butter, *Rec. X*, 486; *XI*, 1080.
- feed on quantity and quality of milk, *Rec. VI*, 658, 748; *VII*, 977; *XI*, 86, 284, 688.
- feeding fat, *Rec. VII*, 150; *XII*, 283.
- fish meal, ground for, *Rec. VI*, 657.
- Glauber's salts on udder and milk, *Rec. V*, 823, 918.
- heavy grain feeding on the quantity and quality of milk, *Rec. III*, 472.
- imperfect ventilation on milk yield, *Rec. IV*, 180.
- increasing the carbonaceous food in the ration, *Rec. III*, 565.
- increasing the nitrogenous food in the ration, *Rec. III*, 564.
- individuality on taste and tolerance of milk, *Rec. XII*, 784.
- nutritive ratio upon the economy of milk and butter production, *Rec. VII*, 604; *VIII*, 823.
- olein on butter, *Rec. IV*, 664.
- pasture on the quantity and quality of milk, *Rec. XI*, 587, 782.
- quantity of food upon the economy of milk and butter production, *Rec. VIII*, 822.
- rations on yield and quality of milk, *Rec. XII*, 382.
- shelter on milk production, *Rec. V*, 972.
- spaying on milk production, *Rec. II*, 197, *XI*, 86, 696.
- succulent food on the churnability of fat in milk, *Rec. III*, 472.
- sugar on fat, *Rec. III*, 579, 744.
- tobacco, *Rec. V*, 263.
- treatment on milk production, *Rec. V*, 972.
- turnips on taste of milk, *Rec. IX*, 92; *X*, 287; *XI*, 81.
- unequal intervals between milking on quality of milk, *Rec. XII*, 383.
- vetches on milk production, *Rec. VII*, 64; *VIII*, 626.

Cows—Continued.

effect of—continued.

- warm stables on milk yield and quality, *Rec. VI*, 1023; *VIII*, 432.
- work on yield and composition of milk, *Rec. VIII*, 441, 536; *X*, 993.
- Ennsthaler, *Rec. VIII*, 535.
- exercise, *Rec. XII*, 381.
- fattening experiments, *Rec. I*, 96.
- feeding, *Rec. V*, 655; *VII*, 256; *IX*, 688, 1081; *X*, 295, 492, 790, 891, 1095; *XI*, 188; *XII*, 388, 484, 698, 786.
- feeding—
 - and care, *Rec. X*, 590.
 - experiments, *Bul. 2, I*, 160; *Bul. 2, II*, 78, 97; *Rec. I*, 7, 77, 222, 255; *II*, 364, 411, 666; *III*, 398, 426, 473, 474; *IV*, 108, 259, 419, 519, 599, 696, 986; *V*, 376; *VI*, 160, 326, 463; *VIII*, 174, 536, 629; *IX*, 91, 788, 879, 984; *X*, 480, 588; *XI*, 280, 1078.
 - experiments, cooperative in Denmark, *Rec. VI*, 585.
 - experiments, experimental error in, *Rec. VIII*, 1021.
 - experiments in Denmark, *Rec. VIII*, 255.
 - experiments in Wisconsin, *Rec. VII*, 614.
 - for milk and butter, *Rec. V*, 683.
 - grain, heavy *v. light*, *Rec. XI*, 884; *XII*, 81.
 - grain on pasture, *Rec. XII*, 883.
 - increasing amounts of protein, *Rec. III*, 564; *XI*, 577.
 - in Sweden, *Rec. X*, 790.
 - large rations of concentrated food, *Rec. V*, 1101.
 - manual, *Rec. XI*, 789.
 - methods, *Rec. IV*, 986.
 - milk to, *Rec. V*, 969.
 - rational, *Rec. V*, 655; *VII*, 237.
- fertilizing constituents—
 - in manure, *Bul. 2, I*, 159.
 - urine, *Rec. XII*, 927.
- Finnish, tests, *Rec. IX*, 882.
- fish meal for, *Rec. VI*, 657.
- flaxseed—
 - and linseed oil for, *Rec. IX*, 683.
 - ground, for, *Rec. IX*, 683.
 - v. linseed cake* for, *Rec. XI*, 578.
 - linseed meal for, *Rec. III*, 785.
- flaxseed meal for, *Rec. III*, 785.
- fly mixtures for, *Rec. XI*, 689.
- food—
 - consumed in producing a large quantity of milk, *Rec. XI*, 1078.
 - nitrogen in, *Rec. V*, 524.
 - phosphate of lime in, *Rec. V*, 540, 639.
 - units consumed by, *Rec. X*, 83.
- for cheese and butter making, *Rec. V*, 319.
- creameries, rations for, *Rec. V*, 540.
- restoring fertility, *Rec. XI*, 397.
- forage and soiling crops for, *Rec. XI*, 587.
- French, *Rec. VIII*, 521.
- garget. (*See* MAMMITIS.)
- germ feed for, *Rec. V*, 73.
- German, *Rec. VIII*, 521.
- gestation, *Rec. XI*, 81, 599.
- Glauber's salts, effect of feeding, *Rec. V*, 918, 971.

Cows—Continued.

- gluten feed for, *Rec. V*, 73.
- gluten meal—
 - for, *Rec. II*, 592; *III*, 219, 287; *IV*, 64, 65; *VIII*, 428, 429, 1020; *XI*, 885, 888.
- v. corn meal and bran for, *Rec. III*, 86; *VIII*, 1020.
- cotton-seed meal for, *Rec. III*, 86; *IX*, 881.
- maize feed for, *Rec. VII*, 972.
- skim milk for, *Rec. III*, 86.
- good v. poor, *Rec. IX*, 799; *XII*, 298.
- grain—
 - and soiling diet, *Rec. II*, 370.
 - feed, *Rec. XII*, 798.
 - increasing amounts for, *Rec. VIII*, 627.
 - light v. heavy for, *Rec. III*, 474.
 - mixed v. molasses feed for, *Rec. IX*, 984.
 - mixed v. sugar-beet residue and molasses feed for, *Rec. IX*, 984.
- green forage—
 - for, *Bul. 2, I*, 77; *Rec. X*, 992.
 - v. hay for, *Rec. II*, 574; *III*, 153.
 - (*See also COWS, SOILING CROPS FOR.*)
- grooming, *Rec. XII*, 284.
- Guernsey—
 - in Germany, *Rec. IV*, 223.
 - tests, *Rec. II*, 162, 241, 404, 499; *III*, 301, 311; *IV*, 255, 263, 268; *VI*, 1014; *VII*, 45; *VIII*, 634; *X*, 782; *XI*, 983; *XII*, 90.
- hairy vetch for, *Rec. VI*, 931.
- handling, *Rec. XI*, 688.
- hay—
 - and roots v. corn silage for, *Rec. IV*, 440.
 - for, *Rec. II*, 646, 666; *III*, 473; *X*, 485.
 - large v. small rations for, *Rec. VII*, 887.
 - substitutes for, *Rec. VII*, 320.
 - v. fodder corn for, *Rec. VIII*, 930.
 - silage for, *Rec. III*, 86.
- heavy v. light, *Rec. XII*, 288.
- herd—
 - record, *Rec. I*, 81; *II*, 577; *III*, 764; *V*, 73, 209, 320, 1064; *VI*, 328, 468, 659, 749, 928; *VII*, 64, 329, 335, 425, 523, 629, 708, 885; *VIII*, 174, 440, 628, 634, 931, 1022, 1032; *IX*, 282, 494, 588, 882, 883, 985, 1081; *X*, 188, 295, 484, 492, 892; *XI*, 86, 188, 383, 485, 688, 883, 888, 983, 1078; *XII*, 83, 185, 286, 288, 380, 384, 387, 388, 479, 480, 593, 781, 883, 982, 1079.
 - testing, *Rec. XI*, 485.
- H. O. dairy feed for, *Rec. XI*, 983.
- Holderness, tests, *Rec. III*, 311, 312; *IV*, 255, 263, 268, 273; *VI*, 1014; *VII*, 45; *VIII*, 634.
- Holstein, tests, *Bul. 2, II*, 95; *Rec. II*, 162, 241, 403, 404, 499, 647; *III*, 19, 301, 311; *IV*, 255, 263, 275; *VI*, 457, 1014; *VII*, 45, 337; *VIII*, 634; *IX*, 882; *XI*, 284, 983; *XII*, 90, 383.
- Hungarian grass for, *Rec. II*, 667.
- improvement, *Rec. VI*, 468; *VIII*, 634.
- improvement—
 - by feeding and care, *Rec. XII*, 1078.
 - importance of fat determination in, *Rec. V*, 1033, 1065.
- Indian, *Rec. VII*, 986.

Cows—Continued.

- individual differences, *Rec. II*, 52, 211.
- inflammation of milk ducts, *Rec. IX*, 893.
- inoculation with bacillus of diphtheria, *Rec. V*, 824.
- Japan clover for, *Rec. II*, 363.
- Jersey—
 - in Germany, *Rec. IV*, 223.
 - notes, *Rec. IV*, 223; *XI*, 688.
 - ten years' record, *Rec. VIII*, 731.
 - tests, *Bul. 2, II*, 95; *Rec. II*, 162, 241, 403, 404, 499, 647; *III*, 19, 301, 311; *IV*, 255, 263, 268, 273; *VI*, 1014; *VII*, 45; *VIII*, 436, 634; *XI*, 983; *XII*, 288.
- judging, *Rec. VIII*, 174; *X*, 1096.
- judging, rules for, *Rec. X*, 679.
- King gluten meal for, *Rec. VII*, 972.
- lactation period, *Rec. II*, 500.
- lactation period—
 - changes in weight during, *Rec. IV*, 223.
 - milk yield, *Rec. IV*, 941.
- Lespedeza hay for, *Rec. III*, 167.
- linseed cake—
 - for, *Rec. VI*, 160.
 - v. flax seed for, *Rec. XI*, 578.
 - sesame cake for, *Rec. III*, 656, 745.
- linseed meal—
 - for, *Bul. 2, II*, 78; *Rec. II*, 277, 592; *III*, 222, 288, 785; *IV*, 64, 65, 260; *VIII*, 335; *XII*, 589.
 - old process for, *Rec. IV*, 64, 65.
 - old v. new process for, *Rec. II*, 277; *III*, 153, 287.
- linseed oil for, *Rec. IX*, 683; *X*, 487; *XI*, 675.
- lupines, disemittered for, *Rec. VI*, 163.
- malignant edema, *Rec. VII*, 805, 987.
- malt for, *Rec. XI*, 284.
- malt-sprouts molasses for, *Rec. XI*, 885, 888.
- mammitis in. (*See MAMMITIS.*)
- management, *Rec. XI*, 489, 688, 983; *XII*, 698.
- management, Swedish, *Rec. VI*, 573.
- mangel-wurzels—
 - and sugar beets v. silage for, *Rec. VI*, 446; *VII*, 240, 976.
 - swedes for, *Rec. XII*, 884.
- for, *Rec. III*, 216; *VI*, 460; *VII*, 976; *VIII*, 528; *XII*, 678.
- v. turnips for, *Rec. XII*, 387.
- manurial factor in feeding experiments with, *Rec. II*, 573, 576.
- marsh hay for, *Rec. VIII*, 930.
- metabolism, *Rec. V*, 142, 524; *X*, 803, 903.
- metabolism experiments, *Rec. XI*, 484.
- milk—
 - fever. (*See MILK FEVER.*)
 - whole and skimmed, for, *Rec. IV*, 181.
 - yield of Shorthorn herds, *Rec. IX*, 282.
- milking. (*See MILKING.*)
- milk production. (*See MILK PRODUCTION.*)
- molasses—
 - and sugar-beet residue for, *Rec. X*, 790.
 - for, *Rec. VII*, 425, 520, 701; *IX*, 275, 281, 874, 876; *X*, 772; *XII*, 288, 592, 679.
 - v. cane sugar for, *Rec. IX*, 876.
- molasses feed v. barley and oats for, *Rec. IX*, 983.

Cows—Continued.

- mustard seed injurious to, **Rec. V**, 913.
- nitrogen excretion, **Rec. V**, 142.
- Normandy, tests, **Rec. XI**, 983.
- number and value of, **Rec. II**, 518; **V**, 799.
- Nutritone for milk production, **Rec. IX**, 881.
- nutritive ratio of rations for, **Rec. III**, 557.

oat—

- and barley hay *v.* native hay for, **Rec. VI**, 468.
- barley hay *v.* oat and barley silage for, **Rec. VI**, 453.
- pea fodder for, **Rec. VII**, 57.
- pea forage alone and with grain for, **Rec. X**, 992.
- feed *v.* corn meal for, **Rec. V**, 316.
- straw and vetches for, **Rec. VII**, 64.
- straw for, **Rec. VII**, 523, 616.

oats—

- and barley *v.* wheat bran and shorts for, **Rec. VI**, 657.
- peas for, **Rec. V**, 1065; **X**, 295.
- peas *v.* cats and tares as soiling crops for, **Rec. XI**, 688.
- green for, **Rec. III**, 131.
- ground *v.* bran for, **Rec. II**, 440.
- ground *v.* wheat bran for, **Rec. IV**, 259; **IX**, 881.

oil cakes for, **Rec. IV**, 601; **XII**, 179.oils for, **Rec. IV**, 662; **X**, 685.old, feeding for beef, **Rec. III**, 607.*Opuntia ficus indica* for, **Rec. XII**, 884.palm-nut cakes for, **Rec. XI**, 1084; **XII**, 589.palm-nut meal for, **Rec. II**, 592.palm-nut residue for, **Rec. XII**, 589, 592.parturient apoplexy. (*See* MILK FEVER.)parturient paresis. (*See* MILK FEVER.)

pasturage—

- alone and with grain ration, **Bul. 2**, II, 24; **Rec. I**, 280; **II**, 369, 504; **III**, 613; **IV**, 842; **VII**, 62; **IX**, 884; **XII**, 788, 833.
- v.* barn feeding, **Rec. III**, 477.

pea and oat hay for, **Rec. II**, 667; **V**, 1065.peanut cake for, **Rec. VIII**, 626; **XI**, 885.peanut meal for, **Rec. III**, 564; **XII**, 589.peanut vine hay for, **Rec. V**, 1081.

peas—

- and tares for, **Rec. X**, 295.
- green for, **Rec. III**, 131.

peavine silage—

- v.* pasture for, **Rec. XII**, 481.
- wheat bran for, **Rec. VIII**, 527.

pedigrees, **Rec. II**, 243.phosphoric acid excreted by, **Rec. V**, 142.

poisoning—

- by corn cockle, **Rec. XII**, 394.
- rape-seed cake, **Rec. IX**, 994.
- with *Agrostemma githago*, **Rec. XII**, 394.
- poppy cake for, **Rec. IX**, 789.
- potash excreted by, **Rec. V**, 142.
- potato residue for, **Rec. III**, 538.
- potato vines for, **Rec. VI**, 76.
- potatoes for, **Rec. IV**, 181; **V**, 540, 813; **VI**, 160, 163, 573; **VII**, 337.
- prairie hay for, **Rec. VI**, 918; **VII**, 425.
- pregnant, management, **Rec. V**, 439.

Cows—Continued.

production—

- in Connecticut, **Rec. XII**, 380.
- relation to conformation, **Rec. IX**, 879.
- productive capacity—
 - control of, **Rec. IX**, 1088.
 - of different, **Rec. V**, 890.
- profit in keeping, **Rec. VIII**, 441.
- profitable and unprofitable, **Rec. IX**, 799; **XII**, 298.
- protection from flies, **Rec. XII**, 82.
- pumpkins for, **Rec. XI**, 1081.
- railroad fever, **Rec. XI**, 289.
- rape for, **Rec. V**, 634.
- rape-seed cake for, **Rec. V**, 927; **VI**, 76; **VII**, 64.

rations—

- balanced *v.* unbalanced for, **Rec. XII**, 382.
- fed in Connecticut, **Rec. VI**, 655; **VII**, 603; **IX**, 786; **X**, 681.
- for, **Rec. III**, 405; **IV**, 665, 740; **V**, 195, 207, 502, 540, 635, 688, 884, 927, 1065, 1101; **VI**, 458, 656; **VII**, 178, 603; **VIII**, 347, 431, 834; **IX**, 281, 494, 688, 689, 787; **X**, 681, 684; **XI**, 284, 884.
- in Canada for, **Rec. IX**, 281.
- nitrogenous *v.* carbonaceous for, **Rec. II**, 591; **III**, 509; **IX**, 380, 388.
- nutritive ratio, **Rec. III**, 557.
- preparation of, **Rec. III**, 22, 88.

Red Polled—

- composition of milk, **Rec. II**, 404, 441.
- tests, **Rec. II**, 404; **XI**, 983.
- reindeer moss for, **Rec. IX**, 689; **X**, 492.
- relative value for butter and cheese production, **Rec. V**, 319.
- Robertson silage mixture as a partial substitute for grain, **Rec. IX**, 881.

roots—

- for, **Rec. III**, 222; **X**, 684; **XI**, 284.
- v.* silage for, **Rec. V**, 317.
- rupture, treatment, **Rec. VII**, 67.
- rye—
 - green, for, **Rec. X**, 295.
 - pasturage, **Rec. X**, 430.
 - v.* silage for, **Rec. V**, 73.
- rye bran for, **Rec. IV**, 783.
- rye meal *v.* Quaker-oats feed for, **Rec. XII**, 678.
- salting, **Bul. 2**, I, 108; **Rec. VI**, 848.
- salt-marsh hay for, **Rec. X**, 484.
- scale of points for, **Rec. XII**, 90.
- selection, **Rec. I**, 161; **V**, 207; **VII**, 337; **XI**, 498; **XII**, 798, 982.
- selection—
 - and breeding, **Rec. VII**, 256.
 - testing, **Rec. XII**, 388.
 - by milk analysis, **Rec. VI**, 455.
 - for experiments, **Rec. X**, 395.
- sesame cake—
 - and cracked wheat for, **Rec. X**, 791.
 - for, **Rec. VII**, 708.
- sesame oil for, **Rec. X**, 686; **XI**, 485, 587.
- sheltering in winter, **Rec. V**, 598.
- Shorthorn, tests, **Bul. 2**, II, 95; **Rec. II**, 162, 241, 403, 404, 499; **III**, 301; **VI**, 1014; **VII**, 45; **VIII**, 634; **XI**, 983; **XII**, 389.
- silage—
 - and roots for, **Rec. VII**, 976.

Cows—Continued.

silage—Continued.

for, *Bul.* 2, II, 80; *Rec.* II, 247, 646, 666; III, 153, 216, 222, 473; VI, 453, 460, 748, 919; VII, 976; VIII, 86, 160, 826, 1019; IX, 91; XII, 678.

mixed, for, *Rec.* III, 287.

Robertson mixture, for, *Rec.* VIII, 86; IX, 881.

v. beets for, *Rec.* I, 41; VIII, 1019.

cotton-seed hulls for, *Rec.* V, 501.

dry fodder, *Rec.* I, 88, 96, 167.

grain for, *Rec.* IX, 381, 881.

hay for, *Rec.* III, 86.

mangel-wurzels for, *Rec.* III, 404.

potatoes for, *Rec.* IX, 883.

roots for, *Rec.* VI, 447.

timothy hay for, *Bul.* 2, II, 79.

Simmenthaler, tests, *Rec.* XI, 983.

skim milk for, *Rec.* IV, 181; VII, 523, 985; VIII, 248, 1032; IX, 382; X, 487; XI, 86.

soiling, *Rec.* III, 454.

soiling—

acreage required, *Rec.* III, 131.

crops for, *Rec.* II, 574; III, 131, 152, 453, 784; IV, 64, 65, 480, 489; V, 197, 599, 992; VI, 1013; VIII, 429; X, 295, 483; XI, 587, 783; XII, 382, 388.

crops *v.* hay for, *Bul.* 2, II, 130.

system for, *Bul.* 2, II, 124; *Rec.* III, 453.

v. pasturing, *Bul.* 2, II, 131; *Rec.* III, 456; XII, 783.

sorghum—

bagasse for, *Rec.* V, 1081; VII, 64.

fodder for, *Rec.* V, 1081.

for, *Rec.* III, 40; X, 430.

silage for, *Rec.* III, 216, 222.

soy bean—

hay for, *Rec.* V, 1081; VII, 320.

silage for, *Rec.* V, 1065.

soy beans—

for, *Rec.* III, 153; VII, 150.

green, for, *Rec.* IV, 65.

spayed, at Geneva Exhibition, *Rec.* VIII, 258.

spaying, *Bul.* 2, I, 105, 110; *Rec.* I, 8; II, 197, 318; VI, 165; VIII, 834; X, 488; XI, 789; XII, 394.

stables for, *Rec.* XI, 489.

stall for, *Rec.* XI, 285, 389.

starch waste for, *Rec.* II, 592.

sugar for, *Rec.* XII, 679.

sugar-beet diffusion residue, wet *v.* dry, for, *Rec.* III, 640.

sugar-beet pulp for, *Rec.* XII, 878.

sugar-beet residue and molasses feed *v.* mixed grain for, *Rec.* IX, 984.

sugar beets—

dried diffusion residue of, for, *Rec.* X, 587.

ensiled diffusion residue of, for, *Rec.* X, 587.

for *Rec.* II, 364; IV, 181; VII, 976; VIII, 528; X, 587; XII, 678.

v. mangel-wurzels for, *Rec.* IV, 440; XI, 688; XII, 389.

sugar meal for, *Rec.* V, 73.

sugar, raw, for, *Rec.* XI, 885.

Cows—Continued.

sunflower-seed cake for, *Rec.* IV, 389, 508; IX, 887.

Swedish, *Rec.* VII, 986.

sweet corn, green, *v.* dent corn for, *Rec.* X, 289.

tallow for, *Rec.* VII, 236; IX, 494.

testing, *Rec.* XI, 486.

testing—

for milk and butter production, *Rec.* VII, 422; X, 708; XI, 198.

milk, advantages, *Rec.* VIII, 634.

new method, *Rec.* IV, 489.

tests, *Rec.* VI, 663; XI, 587, 673, 888; XII, 90, 387.

tests, home *v.* fair grounds, *Rec.* II, 515.

timothy hay—

for, *Bul.* 2, II, 80; *Rec.* III, 166; IV, 259.

v. clover hay for, *Bul.* 2, II, 44, 80.

prairie hay for, *Rec.* VI, 918; VII, 425; XII, 479.

Tropon residue *v.* peanut meal for, *Rec.* XI, 86.

tuberculosis in. (*See* TUBERCULOSIS.)

turnips for, *Rec.* VI, 460; VIII, 528.

type—

in relation to production, *Rec.* XII, 381, 479, 782.

v. breed, *Rec.* XI, 86.

vaginitis, cause and treatment, *Rec.* XI, 192, 289.

value—

as determined by butter test, *Rec.* V, 597.

determined by milk test, *Rec.* VII, 422.

related to weight, *Rec.* XI, 789.

of breeds, *Rec.* XI, 284.

variation in productive capacity, *Rec.* V, 813, 823, 917; XII, 480.

vetch—

and oat hay for, *Rec.* VII, 320.

and oats for, *Rec.* III, 153; IV, 65; VII, 320.

effect on milk secretion, *Rec.* VIII, 626.

seed *v.* peanut cake for, *Rec.* VIII, 626.

watering, *Rec.* IV, 773; XII, 284.

watering with cold *v.* warm water, *Bul.* 2, I, 104; *Bul.* 2, II, 78, 82; *Rec.* I, 40, 96, 324; II, 431, 445, 667; IV, 783.

Welsh Black and Shorthorn, comparison, *Rec.* XII, 389.

whale-flesh meal for, *Rec.* VI, 927.

wheat for, *Rec.* VI, 462, 463; X, 1065.

wheat *v.* barley and corn for, *Rec.* XII, 479.

wheat bran—

for, *Bul.* 2, II, 80; *Rec.* III, 19, 153, 222, 287; IV, 260; VI, 657; VIII, 335.

v. corn meal and linseed meal for, *Rec.* VIII, 335.

rice bran for, *Rec.* XI, 1078.

wheat shorts for, *Rec.* VI, 659.

wheat meal *v.* corn meal for, *Rec.* VIII, 825.

winter feeding, *Rec.* VI, 460, 573; VIII, 627; XI, 284; XII, 185.

winter rations for, *Rec.* XI, 284.

Cows' milk. (*See* MILK.)

Crab apples—

- American, varieties, Rec. VII, 687.
- as stocks for common apples, Rec. XI, 930.
- germination as affected by size of fruits and number of seeds, Rec. XII, 758.
- girdling to hasten fruitfulness, Bul. 2, 1, 93.
- hardy varieties, Rec. XII, 630.
- native, notes, Rec. IV, 655.
- Siberian, as a stock for common apples, Rec. III, 865; XI, 848.
- varieties, Rec. I, 84; II, 295, 395, 599; III, 360, 403, 537; IV, 727; V, 190; VI, 52, 423, 820; IX, 50; X, 49, 254; XI, 251, 1048; XII, 853.
- wild, notes, Rec. III, 522.

Crab grass—

- analyses, Bul. 2, 1, 108; Rec. II, 50, 491.
- as a forage plant, Rec. III, 40.
- digestibility, Rec. VIII, 511.

hay—

- analyses, Rec. III, 40.
- and cotton-seed meal, digestibility, Rec. VIII, 511.
- digestibility, Rec. X, 668; XI, 277.
- feeding value, Rec. III, 40.
- notes, Rec. II, 601, 658; IV, 248; V, 161; X, 343; XI, 354; XII, 898.
- root system, Rec. IV, 46.
- Ustilago rabenhorstiana* attacking, Rec. XI, 749.
- wild, analyses, Rec. VI, 403.

Crackers, analyses, Rec. IV, 59; X, 876.

Cracklings—

- and hoof meal, analyses, Rec. XI, 830.
- ground, for poultry, Rec. XI, 279.

Cradine, a new peptic ferment, Rec. III, 749.

"Craie grise," adulteration, Rec. V, 697.

Crambe maritima, notes, Rec. VIII, 407.

Crambidae of North America, Rec. VIII, 417.

Crambus—

- abellus*, notes, Rec. VI, 63.
- alboclavellus*, notes, Rec. VI, 63.
- caliginosellus*, notes, Rec. III, 327; IV, 660; VI, 63; X, 66; XI, 952, 953.
- elegans*, notes, Rec. VI, 63.
- exsiccatulus*, notes, Rec. I, 45; III, 55; VI, 313.
- floridus*, notes, Rec. VI, 63.
- giradellus*, notes, Rec. VI, 63.
- innotatellus*, notes, Rec. VI, 63.
- interminellus*, notes, Rec. VI, 63, 314; VIII, 505.
- laqueatellus*, notes, Rec. VI, 63; VIII, 505.
- leachellus*, notes, Rec. VI, 63.
- lutcollellus*, notes, Rec. VI, 62; VIII, 505.
- mutabilis*, notes, Rec. VI, 63; VIII, 505.
- ruricolellus*, notes, Rec. VI, 63.
- spp., parasites, Rec. VI, 63.
- teterrellus*, notes, Rec. V, 101; VI, 63.
- topiarius*, notes, Rec. VI, 63, 562.
- vulgiragellus*, notes, Rec. VI, 63, 836; VIII, 320.
- zecllus*, notes, Rec. VIII, 505.

Crambus, synopsis of species, Rec. VI, 62.

Cranberries—

- analyses, Rec. II, 582; IV, 59; VI, 331.
- cost of growing, Rec. XII, 1046.
- culture, Rec. V, 799; IX, 841.
- culture in Nova Scotia, Rec. X, 758.
- fertilizer experiments, Rec. VIII, 888.
- Finnish, composition, Rec. XII, 753.

Cranberries—Continued.

- insects affecting, Rec. II, 418; III, 871; IV, 565, 838; V, 402, 800; IX, 371; X, 569.
- rotting, Rec. XII, 298.
- sugar, determination in, Rec. XII, 753.

Cranberry—

bogs—

- crickets on, Rec. IV, 564.
- grasshoppers on, Rec. IV, 564.
- locust on, Rec. IV, 564.
- management, Rec. III, 307, 309, 871; IV, 566; VI, 298.
- making, Rec. XII, 953.
- moss in, Rec. V, 800.

diseases, Rec. III, 307,

- fireworm, remedies, Rec. I, 134; III, 871; IV, 838; XI, 951, 957.

fruit worm—

- notes, Rec. I, 134; II, 418; III, 871; IV, 838; XI, 957.
- remedies, Rec. XI, 957.

gall fungus—

- notes, Rec. I, 263; III, 297, 307; IV, 835; V, 800; VI, 559.

treatment, Rec. II, 33.

girdler, notes, Rec. VI, 562.

high-bush, notes, Rec. IV, 656.

leaf hoppers, notes, Rec. II, 418.

scald—

- notes, Rec. I, 263, 264; III, 297; IV, 835; V, 800; VI, 559.

treatment, Rec. II, 33.

scale, notes, Rec. II, 418; IV, 838.

soils, studies, Rec. XI, 718.

spanworm—

- notes, Rec. I, 134; X, 569.
- remedies, Rec. XI, 957.

tipworm, notes, Rec. I, 134; III, 309, 871.

vines, analyses, Rec. I, 80; II, 581.

worm—

- red-striped, notes, Rec. I, 134.
- yellow-headed, notes, Rec. IV, 838.
- worms, notes, Rec. II, 418.

Crane flies—

- affecting grasses, Rec. XI, 1066.
- as food of the robin, Rec. IV, 419.
- remedies, Rec. XI, 263.

(See also TIPULA.)

Crane fly—

- larvæ of, notes, Rec. II, 179.
- notes, Rec. IV, 204, 840; VII, 147, 316, 882; IX, 74; XII, 1060.

Craniophora (Acronycta) ligustri olivacea, notes, Rec. XI, 1065.

Craonnais swine, Rec. IV, 866.

Craponius inaequalis, notes, Rec. III, 175.*Cratægus*—

- coccinea*, notes, Rec. III, 522.
- crus-galli*—
 - as host of *Gymnosporangium*, Rec. II, 712.
 - notes, Rec. IV, 654.
- n. sp., description, Rec. XII, 827.
- oryacantha*—
 - hypertrophy, Rec. VIII, 957.
 - witches' brooms, Rec. XII, 658
- tomentosa*, notes, Rec. III, 522.

Cratogeomys—

- castanops*, notes, Rec. VII, 20.
- castanops goldmani*, notes, Rec. VI, 787.
- estor*, notes, Rec. VI, 787.
- fulvescens*, notes, Rec. VI, 787.
- oreocetes*, notes, Rec. VI, 787.
- peregrinus*, notes, Rec. VI, 787.
- perotensis*, notes, Rec. VI, 787.

Cratotechus brevicapitatus, notes, Rec. II, 731.

Crayfish, carbon bisulphid for, Rec. VIII, 416.

Cream— (See also BUTTER MAKING.)

- analyses, Bul. 2, I, 191; Bul. 2, II, 44, 105; Rec. II, 582; III, 21, 144, 154, 397, 765; IV, 66, 486; V, 82, 207, 209, 944; VIII, 347, 442; X, 281, 715; XI, 769, 770; XII, 279, 280.
- analysis, methods, Rec. III, 750.
- and skim milk in centrifugal creaming, Rec. VII, 808.
- ash constituents, Rec. III, 23, 154; IV, 66.
- bacteria in, Rec. II, 396; III, 382; IV, 873; V, 1049; XI, 388, 786.
- centrifugal—
 - determination of fat in, Rec. IX, 224.
 - for ice cream, Rec. V, 796, 1067.
- churnability as affected by food, Rec. III, 86; IX, 884.
- churning. (See CHURNING.)
- clotted, analyses, Rec. XII, 680.
- content of milk—
 - determination, Rec. IV, 289; VI, 111.
 - from different breeds, Rec. IV, 454.
 - relation to fat content, Rec. III, 928; IV, 213; V, 950.
- cooling after pasteurization, Rec. V, 1024.
- cost per quart or space, Rec. I, 81; III, 154; IV, 67.
- detection of gelatin in, Rec. IX, 808.
- determination of—
 - acidity, Rec. III, 931; VI, 83, 248; VII, 254; VIII, 933; IX, 12; X, 593.
 - fat in, Rec. II, 242, 631; VI, 185; IX, 224, 285; X, 90, 91; XI, 812; XII, 485.
 - proteids, Rec. X, 715.
 - viscosity, Rec. IX, 181.
- effect of acidity on—
 - churnability, Rec. V, 1057.
 - composition of butter, Rec. VI, 938.
- fat content, Rec. V, 642.
- fat content, Parson's method for calculating, Bul. 2, II, 106.
- fertilizing constituents, Rec. I, 81.
- from colostrum, analyses, Rec. IV, 488.
- milk of tuberculous cows, Rec. II, 107.
- gauge, use in creameries, Bul. 2, II, 27.
- handling and churning, Rec. I, 322.
- heating before ripening to prevent odor of turnips, Rec. V, 1059.
- keeping quality, Rec. V, 440.
- loss—
 - in volume after standing, Rec. VI, 477.
 - of fat by keeping, Rec. VI, 185.
- pasteurization, Rec. IV, 223, 381; V, 928; VI, 580; VII, 68, 629, 987; VIII, 722; XI, 786; XII, 84.
- pasteurization, cooling after, Rec. V, 1024.
- pasteurized, Rec. IX, 583.

Cream—Continued.

pasteurized—

- for butter making, Rec. IV, 447; V, 440, 646, 1025, 1058, 1059; X, 289; XI, 681, 682, 976; XII, 386.
 - germs in, Rec. V, 1049.
 - in creameries, Rec. V, 440, 1058, 1059.
 - restoring consistency, Rec. IX, 181, 899.
 - v. nonpasteurized for butter making, Rec. X, 289.
 - payment for, at creameries, Rec. I, 321; VI, 247, 847; VII, 67, 338, 625, 898.
 - preservation, Rec. VI, 169.
 - preservation for market, Rec. VII, 992; IX, 887.
 - production—
 - breeds for, Rec. VII, 46.
 - comparison of breeds for, Rec. VIII, 634.
 - profits from selling, Rec. VII, 423; IX, 92.
 - quality as affected by pregnancy, Rec. II, 648.
 - raising, Bul. 2, II, 24; Rec. I, 130; III, 22, 99, 231, 367, 401, 477, 480, 765, 778, 796; V, 640, 643, 738, 783; VI, 483.
 - raising as affected by—
 - aeration, Rec. IV, 364.
 - cotton seed and cotton-seed meal, Rec. III, 97.
 - delay in setting, Rec. III, 231, 482; V, 643.
 - fibrin in milk, Rec. III, 232.
 - individuality, Rec. VI, 477.
 - lactation period, Rec. III, 99; IV, 445; X, 288.
 - size of fat globules, Rec. IV, 265.
 - raising—
 - at different temperatures, Rec. V, 79; VI, 476; VII, 714; VIII, 1025; XI, 685.
 - by centrifugal methods, Rec. IV, 784; V, 999; VIII, 480.
- (See also SEPARATOR.)
- centrifugal methods v. setting, Rec. I, 99, 184.
 - Cooley creamer, Rec. II, 284; III, 480; VI, 476.
 - Danish systems, Rec. V, 609.
 - deep setting, Rec. III, 476, 480, 483, 765, 796; IV, 444; V, 81, 1055; VI, 83, 758.
 - deep setting at different temperatures, Rec. IV, 444.
 - deep setting in air, Rec. III, 477.
 - deep setting v. separator, Rec. V, 1055; VI, 338.
 - deep v. shallow setting, Rec. IV, 446; V, 80.
 - different methods, Rec. I, 130, 184; III, 765, 778; IV, 273; V, 80; VI, 273, 476, 1024; VII, 713; VIII, 260, 930, 1026; XI, 186.
 - dilution, Rec. II, 284, 404, 504; III, 230, 476, 779; IV, 361, 445, 489; V, 81; XI, 389, 599; XII, 386.
 - hand separator, Rec. VI, 83.
 - shallow setting, Rec. II, 285; III, 477.
 - cooling milk for, Rec. V, 79.
 - effect of scalding milk before setting in ice water, Rec. V, 1056.
 - effect of temperature on, Bul. 2, II, 44; Rec. II, 593; IV, 987.

Cream—Continued.

raising—continued.

- experiments, Rec. IV, 195, 425.
- immediate *v.* delayed setting, Rec. IV, 445.
- in cold setting, Rec. III, 478; IV, 489; VI, 380.
- different sized cans, Rec. IV, 446.
- shotgun cans, Rec. III, 470.
- movement of fat globules in, Rec. V, 1054.
- notes, Rec. XI, 889.
- soda in, Rec. III, 478.
- straining milk through broken ice before setting, Rec. X, 288.
- systems for creameries, Rec. V, 998; VI, 169.
- time required, Rec. IV, 445; VII, 714.
- relation to milk and butter, Rec. IV, 67, 270.
- required for one pound of butter, Rec. II, 593; IV, 270.
- ripening, Rec. VI, 248, 580, 672; X, 289, 690; XII, 387.
- ripening—
 - artificial, Rec. VI, 249.
 - at different temperatures, Rec. XII, 386.
 - by bacteria, Rec. III, 261, 381; V, 260, 996, 1057, 1058, 1061; VI, 85, 478, 678; VII, 68, 71, 253, 621, 622, 623; VIII, 335, 432, 435, 533, 732; IX, 687, 792, 1088; XI, 490.
 - direct inoculation, Rec. XII, 593.
 - experiments, Rec. VIII, 166; IX, 791, 987; XI, 681.
 - new method, Rec. VI, 167.
 - pure cultures for, Rec. II, 261, 931; III, 653; IV, 75, 223, 381, 987; VII, 68, 253; VIII, 261, 441; IX, 83, 383, 490, 589; XII, 983.
 - with different percentages of starter, Rec. XII, 386.
 - kephir, Rec. IX, 795.
 - matzoon, Rec. IX, 887.
- ropiness, Rec. XI, 282.
- sampling, Rec. XII, 185.
- separator. (*See* SEPARATOR.)
- sour—
 - butter from, Rec. II, 299.
 - sampling, Rec. III, 397.
- space, amount of fat in, Rec. VIII, 437.
- structure, Rec. III, 381.
- studies, Rec. XI, 790.
- sweet—
 - for butter making, Rec. II, 53, 299; III, 44, 602, 653, 690; V, 646.
 - v.* sour for butter making, Rec. II, 204; IV, 425, 446; V, 207, 643, 1056; VI, 936.
- testing, Rec. V, 643; IX, 795; XII, 90.
- testing—
 - at creameries, Rec. IV, 611.
 - by Babcock method, Rec. III, 397, 765; IV, 575, 944; XII, 882, 884, 986.
- tests, comparison, Rec. X, 593.
- titration, Rec. IX, 689.
- value, tables for calculating, Rec. II, 295.
- vats, description, Rec. IV, 189.

Cream nut, notes, Rec. VIII, 231.

Cream of tartar—

- adulteration, Rec. VIII, 331.
- analyses, Rec. II, 666; VIII, 667; XI, 314.
- in wines, Rec. IX, 419.

Creameries—

- and infectious diseases, Rec. VI, 479.
- care of milk for, Rec. VI, 169.
- composite sample at, Rec. V, 1001.
- construction—
 - and methods, Rec. IX, 590.
 - equipment, and management, Rec. IV, 189; VII, 162; VIII, 636.
- cooperative, Rec. VI, 85, 483, 941.
- cooperative—
 - and tuberculosis, Rec. IX, 1088.
 - at St. Albans, Vt., Rec. VII, 162.
- Cooley system in, Rec. V, 998; VI, 169.
- in Austria, Rec. IV, 390.
- Denmark, Rec. IV, 785; V, 609; VII, 429; XII, 289.
- France, Rec. VIII, 441.
- Germany, Rec. X, 792.
- Mecklenburg-Schwerin, Rec. VIII, 441, 635.
- Minnesota, Rec. VII, 429.
- South Dakota, Rec. VIII, 636.
- Sweden, Rec. VIII, 1032.
- the United States, Rec. IV, 616.
- western France, Rec. V, 260, 1063.
- management, Rec. IV, 189, 988; V, 361.
- plans for, Rec. VII, 717.
- systems of creaming, Rec. V, 998; VI, 169.
- cream gathering in the United States, Rec. V, 1063.
- disinfecting, Rec. XI, 391.
- electric light for, Rec. V, 656.
- equipment, Rec. IV, 189; VII, 162; VIII, 636; IX, 886.
- examination of glassware, Rec. VIII, 172.
- filtration of water for, Rec. IV, 317.
- in Berlin, Rec. VII, 256.
- Wisconsin, Rec. V, 506.
- losses in butter making, Bul. 2, I, 191; Rec. I, 323; II, 323; IV, 491, 492; V, 1054.
- management, Rec. II, 323, 577, 675; IV, 189; V, 1101; VI, 169; VII, 162, 256; VIII, 636.
- milk—
 - and cream testing at, Rec. IV, 611.
 - pasteurized, Rec. V, 440.
 - tests, Rec. I, 320; II, 52, 101, 120, 203, 212, 256, 294, 324, 331, 377, 378, 441, 504, 565, 630; III, 144, 152, 928; IV, 611; VII, 254, 256, 338, 807; VIII, 531.
- notes, Rec. XII, 982.
- payment for—
 - cream, Rec. I, 321; VI, 247, 847; VII, 67, 338, 625, 898.
 - milk, Rec. I, 320; II, 101, 378; III, 152; VIII, 531; IX, 388; XII, 90.
- rations for cows for, Rec. V, 540.
- relative value plan at, Rec. II, 101; IV, 189.
- separator, Rec. X, 792.
- sterilizing apparatus for, Rec. V, 541.
- Swedish, use of pasteurization and pure cultures, Rec. X, 792.
- tests of separators for, Rec. IV, 195, 616.

Creamers. (*See* SEPARATORS.)

Creamery—

- apparatus, description, Rec. IV, 189.
- at Windsor Park, England, Rec. IX, 589.
- building at Hoorn, Holland, Rec. XI, 389.
- glassware—
 - examination, Rec. VIII, 172.
 - testing, Rec. IX, 877, 899.

- Creamery—Continued.
 herds, veterinary control, **Rec. IV**, 318.
 industry, **Rec. III**, 44, 101; **VIII**, 175.
 industry, adaptability to West Virginia, **Rec. I**, 160.
 machinery and methods, **Rec. III**, 602.
 of the Iowa Station, description, **Rec. IV**, 426.
 practice, observations, **Rec. IX**, 388.
 record of Massachusetts Station herd, **Rec. I**, 81; **II**, 576; **V**, 209; **VI**, 328; **VII**, 335.
 system in Indiana, **Rec. X**, 493.
- Creaming. (*See* CREAM RAISING.)
- Creamometer—
 for determining fat in milk, **Rec. VII**, 339.
 tests, **Rec. IV**, 213.
 unreliability with pasteurized milk, **Rec. VII**, 71, 255, 558.
- Creatin, separation, **Rec. X**, 608.
- Creatinin—
 determination in urine, **Rec. XII**, 512.
 physiology, **Rec. XI**, 374; **XII**, 1077.
 reducing power, **Rec. XII**, 587.
- Credit—
 associations, cooperative, in Europe, **Rec. III**, 905.
 unions, German, **Rec. III**, 905.
- Creek sedge, notes, **Rec. II**, 486, 487.
- Creepers, brown, economic relations, **Rec. XII**, 423.
- Cremastogaster*—
lineolata, notes, **Bul. 2**, 1, 177.
rogenhoferi, affecting tea, **Rec. XI**, 1062.
- Crematory—
 ashes, analyses, **Rec. IX**, 336, 825; **X**, 623, 1031; **XII**, 907, 931.
 garbage, analyses, **Rec. VIII**, 966; **IX**, 636.
- Crenosoma semiarmatum*, notes, **Rec. IX**, 1092.
- Creslin—
 as an antiseptic, **Rec. IV**, 360.
 a disinfectant, **Rec. IX**, 691.
 a remedy for anthrax, **Rec. XII**, 193.
 effect on anthrax, **Rec. XI**, 894.
 test for glanders, **Rec. XI**, 889.
- Creosote—
 for corn smut, **Rec. III**, 858.
 preserving silo walls, **Rec. IV**, 36.
- Crepitodera*—
carinata, notes, **Rec. X**, 769.
- cucumeris*—
 notes, **Rec. I**, 41; **II**, 718; **III**, 175; **VII**, 315; **VIII**, 806; **XI**, 71, 156.
 remedies, **Rec. IV**, 416.
- fuscula*, notes, **Rec. III**, 860.
- rufipes*—
 notes, **Rec. V**, 228.
 on tares, **Rec. XI**, 767.
- Crepis occidentalis*, notes, **Rec. VIII**, 289.
- Creseent, oat feed, analyses, **Rec. XI**, 279.
- Cresols, germicide power, **Rec. XI**, 697.
- Cress—
 bitter, notes, **Rec. IX**, 956.
 culture, **Rec. IX**, 357.
 for market, **Rec. IX**, 245.
 notes, **Rec. X**, 547.
 varieties, **Rec. VII**, 405; **VIII**, 977.
 winter, notes, **Rec. IV**, 47; **IX**, 143, 956.
- Crested dog's tail—
 for meadows and pastures, **Rec. II**, 238.
 notes, **Rec. II**, 600; **V**, 919; **VI**, 97.
- Cribbing, treatment, **Rec. X**, 794.
- Cricetus frumentarius*, notes, **Rec. XI**, 371.
- Cricket—
 field, notes, **Rec. II**, 328; **IX**, 63.
 house, notes, **Rec. IX**, 63.
 tree. (*See* TREE CRICKET.)
- Crickets—
 notes, **Rec. III**, 55; **VII**, 593; **IX**, 151; **X**, 369.
 on cranberry bogs, **Rec. IV**, 564.
Lachnidium acridorum parasitic on, **Rec. V**, 1100.
 western, outbreak, **Rec. V**, 514.
- Crimson clover. (*See* CLOVER, CRIMSON.)
- Crinkled flannel moth, **Rec. VIII**, 911.
- Crinum fimbriatulum*, notes, **Rec. X**, 855.
- Crinums, varieties, **Rec. IX**, 247.
- Crioceris*—
asparagi, notes, **Rec. I**, 22; **II**, 482; **III**, 298; **V**, 402, 685; **VI**, 150, 833; **VII**, 697; **VIII**, 612, 908, 999; **IX**, 569, 574, 662, 964; **X**, 62, 268, 570, 766, 1059; **XI**, 762, 952; **XII**, 367, 575, 862.
 (*See* ASPARAGUS BEETLE.)
12-punctata, notes, **Rec. V**, 402; **IX**, 569, 964; **X**, 268, 570; **XI**, 762, 952; **XII**, 166, 367, 575, 862.
lili, notes, **Rec. IX**, 1072.
melanopa, notes, **Rec. XII**, 974.
- Crittogamia agraria*, n. sp., notes, **Rec. III**, 328.
- Crocota opella*, notes, **Rec. IX**, 965.
- Crocus, bulb disease, **Rec. X**, 59.
- Crocus sativus*—
 diseases, **Rec. IX**, 763.
 notes, **Rec. IX**, 956.
 variety, **Rec. XII**, 613.
- Crocuses, culture, **Rec. IX**, 247.
- Cronartium ribicolum*, notes, **Rec. IX**, 852.
- Crop—
 and composition of the soil, relation between, **Rec. V**, 819.
 and live-stock statistics for—
 Kansas, **Rec. IX**, 698.
 Manitoba, **Rec. IX**, 499, 698; **X**, 197, 697, 846.
 Ohio, **Rec. IX**, 699.
 Ontario, **Rec. VI**, 849; **VII**, 812; **VIII**, 93, 536; **IX**, 297, 499, 699; **X**, 197, 1039; **XI**, 698.
 and weather—
 review, **Rec. VII**, 189.
 service, **Rec. VII**, 21, 22.
 service, Iowa, report, **Rec. V**, 445.
 areas, changes in, **Rec. IV**, 957; **VI**, 87; **VII**, 164.
 bulletin for Quebec, **Rec. XI**, 698.
 circulars, **Rec. X**, 397; **XI**, 297, 698, 898; **XII**, 298.
 conditions—
 abroad, **Rec. XII**, 698.
 in Indiana and Illinois, **Rec. III**, 253.
 correspondents, manual for, **Rec. VII**, 73; **VIII**, 352.
 pest law, **Rec. XII**, 467.
 production—
 and acreage in New York, **Rec. IV**, 275.
 as affected by weather, **Rec. IX**, 122.
 related to soils, **Rec. VII**, 476.
 importance of amount and distribution of water, **Rec. XI**, 537.

Crop—Continued.

- production—continued.
 - in Texas, effect of precipitation and temperature, *Rec. VI*, 196.
 - the United States, *Rec. IV*, 527.
 - of foreign countries, *Rec. V*, 328.
- reporting system of Russia, *Rec. III*, 253.
- reports, *Rec. V*, 221, 680; *VI*, 46, 172, 347, 486, 582; *VII*, 73, 164, 259, 340, 433, 531, 842; *VIII*, 93, 352, 536, 4034; *IX*, 197, 498, 297, 397, 499, 599; *XII*, 698.
- reports—
 - European, *Rec. II*, 548, 609, 673, 749; *III*, 107, 253, 326, 414, 543, 632, 728, 813, 903; *IV*, 77, 429, 675, 762, 788, 850, 957; *VI*, 87, 347.
 - of Denmark, *Rec. VI*, 46; *VII*, 340.
 - Manitoba, *Rec. XI*, 999.
 - Michigan, *Rec. IX*, 297.
 - Scotland, *Rec. IX*, 46.
- review, *Rec. VI*, 755.
- service, instructions to observers, *Rec. IX*, 817.
- statistics for, *Rec. III*, 543; *VI*, 755.
- yield as affected by proportion of fertilizing elements, *Rec. IX*, 349.
- zones and life zones of the United States, *Rec. X*, 724.

Cropping experiments, *Rec. XII*, 44.

Crops—

- as affected by—
 - climate, *Rec. IX*, 501.
 - copper compounds, *Rec. VII*, 189.
 - meteorological conditions, *Rec. XII*, 831.
 - neighboring plants, *Rec. XI*, 1036.
 - preceding growing season, *Rec. XI*, 819.
 - weather, *Rec. XI*, 911.
- as influenced by nature of soil, *Rec. VIII*, 444.
- related to soil moisture, *Rec. XI*, 429.
- basic constituents, *Rec. XII*, 428.
- cultivated, improvement, *Rec. VII*, 682.
- damaged, ensiling, *Rec. VIII*, 689.
- Danish, diseases, *Rec. V*, 653.
- diseases caused by fungi, *Rec. V*, 438.
- drilled, effect of direction of rows on yield, *Rec. X*, 42.
- effect—
 - of drought, *Rec. IV*, 871.
 - on nitrogen content of soils, *Rec. X*, 426.
- exhaustion of soils by, *Rec. VI*, 515.
- fertilizer requirements of, *Rec. XI*, 137, 999.
- field, in Bengal, experiments, *Rec. V*, 448.
- for alkali soils, *Rec. IV*, 950.
- green manuring in the fall, *Rec. IV*, 222.
- hogs, *Rec. IX*, 378.
- Wyoming, *Rec. III*, 727.
- foreign, statistics, *Rec. V*, 1005; *VI*, 755; *XI*, 397; *XII*, 698.
- injury by weeds, *Rec. VII*, 136.
- meteorological conditions affecting, *Rec. IV*, 578.
- moisture requirements, *Rec. XII*, 922.
- of Austria, *Rec. XII*, 1098.
- Germany, *Rec. XII*, 399, 1098.
- Sweden and Norway, in 1893, *Rec. V*, 799.
- the United States, *Rec. V*, 611.
- 1892, history, *Rec. IV*, 578.
- preservation, *Rec. VI*, 541.

Crops—Continued.

- produced on poor soil, *Rec. IX*, 1041.
- productiveness as affected by rolling, *Rec. VIII*, 779.
- protection—
 - by woodlands and wind-breaks, *Rec. VI*, 253.
 - from crows, *Rec. VII*, 842.
 - hail, *Rec. XII*, 502.
- reports on condition of, *Rec. II*, 744.
- root growth, *Rec. V*, 480, 482; *VI*, 568.
- rotation, *Rec. II*, 352; *V*, 679; *VI*, 217, 543; *VII*, 122, 240, 300, 396, 398, 498, 764; *VIII*, 126, 492; *X*, 148.
- rotation—
 - as a preventive of plant diseases, *Rec. X*, 4051.
 - effect on humus content of soils, *Rec. IX*, 644.
 - fertilizers in, *Rec. III*, 888.
 - in Germany, *Rec. VII*, 300.
 - relation to fertilization, *Rec. X*, 956.
 - systems, *Rec. X*, 148.
- sampling, experimental error, *Rec. XI*, 307.
- spraying, *Rec. V*, 1404.
- summer, fertilizer experiments, *Rec. IV*, 861.
- yield as affected by—
 - carbon bisulphid, *Rec. VI*, 564.
 - distance of planting, *Rec. VIII*, 595.

Cross fertilization—

- by bees, *Rec. X*, 874.
- effect on endosperms, *Rec. XI*, 1016.
- experiments, *Rec. IV*, 544; *IX*, 29, 328; *X*, 851.
- impotency of individual pollinations, *Rec. II*, 540.
- of apples, *Bul. 2*, 11, 94; *Rec. III*, 223; *VIII*, 495; *IX*, 1053; *XI*, 447.
- barley, *Rec. VII*, 274.
- cereals, *Rec. V*, 648, 807; *VII*, 273.
- corn, *Bul. 2*, 11, 35; *Rec. I*, 97; *II*, 267, 343, 344, 722, 723; *III*, 218, 697; *IV*, 134, 905; *VI*, 30, 981.
- cowpeas, *Rec. VIII*, 42.
- flowers by insects, *Rec. VII*, 564.
- food plants, *Rec. V*, 1028.
- fruits, *Rec. VI*, 723; *IX*, 841, 899.
- grapes, *Rec. VI*, 46, 729.
- oats, *Rec. V*, 808; *X*, 750.
- potatoes, *Rec. V*, 435.
- roses, *Rec. VIII*, 495; *XII*, 954.
- salices, *Rec. X*, 448.
- small fruits, *Rec. VII*, 274.
- studies, *Bul. 2*, 1, 64.
- wheat, *Rec. V*, 435, 808; *VII*, 273; *VIII*, 124.
- willows, *Rec. X*, 23.

Cross pollination—

- in relation to fruitfulness, *Rec. IX*, 899.
- methods, *Rec. III*, 218.

Crosses between zebra and horse, *Rec. X*, 679.

Crossing—

- and hybridizing, *Rec. XII*, 612, 752.
- cereals, *Rec. X*, 826.
- chrysanthemums, *Rec. I*, 36; *VII*, 405; *IX*, 650.
- corn, *Rec. IV*, 134, 282, 905; *XII*, 717.
- cotton, *Rec. IX*, 238.
- eucenrbits, *Rec. II*, 509; *IV*, 399, 726; *V*, 982; *VI*, 992.

Crossing—Continued.

- Datura stramonium*, Bul. 2, 1, 105.
 eggplants, Rec. II, 738; IV, 825, 922.
 forage plants, Rec. X, 927.
 fruits, Rec. IV, 399; IX, 649; X, 252.
 grapes, Rec. X, 355, 640.
 hellebores, Rec. X, 153.
 ornamental plants, Rec. X, 252.
 peas, Rec. X, 826.
 results, Rec. VII, 179.
 Shropshire and Merino sheep, Rec. IV, 187.
 spelt, Rec. X, 826.
 tomatoes, Rec. III, 91, 409; IV, 653, 921; VI, 51, 726; IX, 244.
 wheat, Rec. VIII, 222, 223; X, 826, 1013.

Crotalaria—*juncea*—

- culture experiments in India, Rec. V, 333.
 notes, Rec. VI, 207; VIII, 492.
sagittalis, notes, Rec. IV, 924; V, 399; X, 516.

Crotalism, causes and symptoms, Rec. IV, 924.

Crotaphytus—

- baileyi*, distribution, Rec. II, 180.
colaris, distribution, Rec. II, 180.

Croton—

- bug, notes, Rec. IX, 858.
 notes, Rec. XI, 354.
 seed—
 detection in feeding stuffs, Rec. IV, 211.
 toxalbumoses, Rec. IX, 720.

Croton, spp., notes, Rec. X, 343.

Croupous—

- enteritis of cats, Rec. XII, 193.
 membranes, pathology, Rec. XII, 393.

Crow—

- as an insectivorous bird, Rec. V, 926.
 blackbirds and their foods, Rec. VII, 469.
 English, feeding habits, Rec. IX, 230.
 seed, distribution in Germany, Rec. XII, 617.

Crowfoot—

- analyses, Rec. III, 318.
 big, analyses, Rec. VI, 403.
 grass—
 analyses, Rec. III, 629.
 notes, Rec. I, 183; X, 343.
 Texas, notes, Rec. X, 343.

Crown gall—

- contagiousness, Rec. XII, 462.
 notes, Rec. VI, 431; VIII, 704; IX, 762; XI, 858; XII, 458, 798, 1055, 1058.
 treatment, Rec. XII, 460.

Crown knot. (See CROWN GALL.)

Crown rusts. (See RUSTS, CROWN.)

Crows— (See also CORVUS.)

- economic relations, Rec. XII, 423.
 food habits, Rec. VII, 840.
 in relation to agriculture and forestry, Rec. XII, 616.
 notes, Rec. XI, 428.
 stomach contents, Rec. XII, 424.

Crucible—

- for alkali determination, Rec. XII, 419.
 Goode, improved, Rec. XII, 309.
 new, Rec. X, 717.

Crucifers—

- anatomical structure of flowers, Rec. V, 923.
 brown rot, Rec. IX, 847.

Crucifers—Continued.

- club root, Rec. V, 235; IX, 761.
 destruction, Rec. XII, 351.
 dimorphism, Rec. X, 825.
 flowers of, Rec. VIII, 670.
 form as related to habitat, Rec. XII, 615.
 fungus diseases, Rec. IX, 957.
 grafting, Rec. III, 926.
 mildew, notes, Rec. IV, 51.
 powdery mildew, Rec. V, 881.
 seed, Rec. IX, 1055.
 sterility, Rec. VIII, 566.

Crude fiber. (See CELLULOSE.)

Crude petroleum for the San José scale, Rec. XII, 971.

Crustaceans, composition, Rec. X, 481.

Cryosecopy of butter and margarin, Rec. XI, 618.

Cryphalus abietis, notes, Rec. IX, 471.*Cryptanthus venenata*, notes, Rec. VI, 114.*Cryptoccephalus*—

- binomis*, notes, Rec. IV, 839.
pubicollis, notes, Rec. X, 769.
quadriples, notes, Rec. IV, 839.
venustus, notes, Rec. IV, 839.

Cryptococcus fagi, notes, Rec. XII, 1062.

Cryptogamic material, preparation and use, Rec. X, 121.

Cryptogams—

- in bacterial cultures, Rec. IX, 420.
 of Wyoming, Rec. XII, 1015.
 syllabus of study, Rec. XI, 1099.
 vascular—

- anatomical researches, Rec. V, 1028.
 occurrence of lignins, Rec. XI, 319.

Cryptohypnus abbreviatus, notes, Rec. III, 451; VIII, 144.*Cryptolemus montrouzieri*—

- importation in California, Rec. XI, 558.
 notes, Rec. VII, 595.

Cryptomeria japonica, notes, Rec. VI, 143; VII, 869.*Cryptomyces aureus*, notes, Rec. XI, 467.*Cryptophaga unipunctata*—

- notes, Rec. III, 53.
 on cherry trees, Rec. XI, 562.

Cryptorhynchus—

- bisignatus*, notes, Rec. X, 168.
lapathi—
 notes, Rec. XII, 1062.
 spread, Rec. VI, 1003.

Cryptosporella anomala, notes, Rec. V, 193.*Cryptosporium epiphyllum*, notes, Rec. X, 962.*C. yptostemma ca. endulacea*, notes, Rec. XII, 961.*Cryptus*—

- mundus*, notes, Rec. VI, 63.
nuncius—
 notes, Rec. II, 115.
 on *Cimbex americana*, Rec. IV, 171.

Crystallization—

- of "massecuits," Rec. VI, 170.
 preventive, analyses, Rec. XII, 823.
 Cryst-Jeyes, fluid for horn fly, Rec. V, 205.

Ctenium, sp., synopsis, Rec. VII, 925.*Ctenotenia denticulata*, notes, Rec. VII, 618.

Cuba—

- climate, Rec. X, 326; XI, 30.
 fauna, Rec. XI, 427.

Cuckoo bees, notes, Rec. II, 496.

Cuckoos—

economic relations, *Rec. XII*, 423.

food, *Rec. X*, 726.

Cucujidae, monograph, *Rec. XI*, 562.

Cucujus coffeophagus, affecting coffee, *Rec. XI*, 1065.

Cucumber—

anthracnose—

notes, *Rec. V*, 192; *VIII*, 895, 991; *IX*, 656; *X*, 362.

treatment, *Rec. VII*, 691; *IX*, 324; *X*, 446; *XI*, 752.

aphis, remedies, *Rec. III*, 241.

bacterial—

diseases, *Rec. V*, 192; *VI*, 487.

wilt, notes, *Rec. XII*, 253.

beetle—

notes, *Rec. XI*, 955.

striped, insecticides, *Rec. II*, 291, 292, 599, 720; *III*, 97.

striped, notes, *Rec. I*, 21, 22; *II*, 291, 318, 659, 734; *III*, 175, 176, 198, 309, 792; *IV*, 840; *V*, 404; *VI*, 833; *VIII*, 321; *IX*, 261, 856; *X*, 165, 270, 570; *XI*, 270, 364, 864; *XII*, 575, 974.

striped, remedies, *Rec. I*, 45, 290; *II*, 292; *IV*, 58; *VII*, 403, 685; *IX*, 70; *X*, 548, 658.

twelve-spotted, notes, *Rec. II*, 169; *X*, 570.

beetles, notes, *Rec. XII*, 1058.

blight, notes, *Rec. VIII*, 990.

damping off, notes, *Rec. III*, 161; *V*, 192; *XII*, 261, 262.

disease, undetermined, *Rec. IV*, 49.

diseases, notes, *Rec. II*, 581; *V*, 192, 348.

downy mildew—

notes, *Rec. V*, 192; *XII*, 1056.

treatment, *Rec. IX*, 249, 251; *X*, 362, 446, 454; *XI*, 357.

eel worm, remedies, *Rec. VIII*, 608.

flea beetle—

effect on potatoes, *Rec. IX*, 156; *X*, 261.

notes, *Rec. III*, 198; *VII*, 315; *VIII*, 806; *XI*, 62, 365.

remedies, *Rec. IV*, 416; *VI*, 652.

fungus diseases, *Rec. XI*, 552; *XII*, 1056.

fusarium wilt, *Rec. XI*, 357.

leaf blight, notes, *Rec. V*, 192.

leaf glaze, notes, *Rec. V*, 192.

mildew, notes, *Rec. III*, 160, 297; *IV*, 51; *VII*, 413, 700; *VIII*, 895; *IX*, 656.

nematode in root, *Rec. XII*, 261.

plants, path of water current, *Rec. VII*, 925.

powdery mildew—

notes, *Rec. III*, 162; *IV*, 48, 49; *V*, 192; *VIII*, 991; *XII*, 56.

treatment, *Rec. III*, 241; *IV*, 48.

spot disease, notes, *Rec. I*, 36; *V*, 309; *VIII*, 991.

timber rot, *Rec. V*, 192.

wilt, notes, *Rec. X*, 454; *XI*, 357, 553.

Cucumbers—

analyses, *Rec. IV*, 59.

cost of spraying, *Rec. XI*, 257.

crossed with muskmelons, *Rec. II*, 510.

culture, *Rec. IX*, 357.

culture—

experiments, *Rec. I*, 198; *VIII*, 407.

in Austria, *Rec. XII*, 1043.

Cucumbers—Continued.

effect of pruning on fruit production, *Rec. XI*, 552.

fertilizer—

experiments, *Rec. IX*, 556.

formula, *Rec. XII*, 851.

forcing, *Rec. III*, 240; *VII*, 770; *VIII*, 700; *XI*, 734; *XII*, 952.

growing—

in pots in winter, *Rec. XII*, 449.

under glass in summer, *Rec. XII*, 1039.

herbaceous grafting, *Rec. II*, 508.

mulching, *Rec. VIII*, 886.

notes, *Rec. V*, 873, 982; *X*, 254, 547, 962; *XI*, 1047; *XII*, 340.

spraying experiments, *Rec. X*, 454; *XI*, 257, 270; *XII*, 353.

undetermined disease, *Rec. IV*, 49.

varieties, *Bul. 2*, *I*, 33; *Bul. 2*, *II*, 135; *Rec. I*, 122, 254; *II*, 6, 69, 395, 396, 515, 566, 583, 607, 669; *III*, 30, 82, 85, 282, 480, 609; *IV*, 282, 828; *V*, 189, 983; *VI*, 142, 218, 296, 727, 807, 988; *VII*, 124, 213, 302, 405; *VIII*, 225, 888, 889, 977; *IX*, 351; *X*, 47, 639, 849; *XI*, 51, 250.

yield on old and new lands, *Rec. XI*, 753.

Cucumis—

melo, notes, *Rec. V*, 982.

(See also MUSKMELON.)

myriocarpus, notes, *Rec. VII*, 690.

sativus, notes, *Rec. V*, 982.

(See also CUCUMBER.)

Curebit—

anthracnose, notes, *Rec. XI*, 357.

downy mildew, notes, *Rec. XI*, 357.

mildew, *Rec. IX*, 761.

new, *Rec. XI*, 51.

wilt, notes, *Rec. VII*, 311; *XI*, 465.

Cucurbita—

fatida, notes, *Rec. III*, 598.

maxima—

cross fertilization, *Rec. II*, 509.

notes, *Rec. V*, 982.

(See also SQUASH.)

pepo—

as affected by carbon dioxid, *Rec. XII*, 110.

cross fertilization, *Rec. II*, 509.

notes, *Rec. V*, 982.

spp., growth of fruit, *Rec. V*, 648.

(See also PUMPKIN AND SQUASH.)

Cucurbitaceae, n. gen., *Rec. VIII*, 289.

Cucurbitaria—

berberidis, parasitism, *Rec. IX*, 527.

pityophila cembra on *Abies pectinata*, *Rec. IX*, 960.

Cucurbits—

Bacillus tracheiphilus on, *Rec. VII*, 311.

crossing, *Rec. II*, 509; *IV*, 399, 726; *V*, 982; *VI*, 992.

hybridization and crosspollination, *Rec. XII*, 449.

insects affecting, *Rec. V*, 404, 406; *XI*, 864.

localization of active principles, *Rec. V*, 729.

manuring, *Rec. XI*, 1047.

pollination, *Rec. XI*, 220.

productiveness as affected by age of seed, *Rec. I*, 283.

progress of flowers, *Rec. II*, 510.

Culex—

- albopictus*, notes, Rec. VII, 594.
- albopunctatus*, notes, Rec. XI, 957.
- annulatus*, notes, Rec. XI, 957.
- elegans*, notes, Rec. XI, 957.
- ficalbii*, notes, Rec. XI, 957.
- glaphyopterus*, notes, Rec. XI, 957.
- hortensis*, notes, Rec. XI, 957.
- impudicus*, notes, Rec. XI, 957.
- malariae*, notes, Rec. XI, 957.
- mimeticus*, notes, Rec. XI, 957.
- modestus*, notes, Rec. XI, 957.
- nemorosus*, notes, Rec. XI, 957.
- ornatus*, notes, Rec. XI, 957.
- peniciliaris*, notes, Rec. XI, 957.
- pipiens*, notes, Rec. VI, 653; XI, 957.
- pulchritarsis*, notes, Rec. XI, 957.
- pungens*, notes, Rec. VIII, 64; IX, 62.
- richiardi*, notes, Rec. XI, 957.
- spathipalpis*, notes, Rec. XI, 957.
- vexans*, notes, Rec. XI, 957.

Culicidae, sp., notes, Rec. VII, 699.*Culicidae*—

- revision of species, Rec. VIII, 614.
- treatise, Rec. XII, 467.
- (See also MOSQUITO.)

Culinary encyclopedia, Rec. XI, 183.

Cultivation—

- adaptation of methods to physical properties of soils, Rec. XI, 805.
- and weeding, effect on soil moisture, Rec. XII, 123.
- as a protection against drought, Bul. 2, 1, 24.
- effect on—
 - fertility of soil, Rec. X, 1020.
 - moisture of soil, Rec. VIII, 301; IX, 735; X, 424; XI, 127.
 - productiveness of soil, Rec. XI, 613.
 - soil temperatures, Rec. VIII, 302.
 - soils, Rec. V, 484, 1098; XI, 32.
 - stooling node of winter rye, Rec. IX, 930.
- in New South Wales, Rec. XII, 1096.
- of heavy soils, Rec. VIII, 756.
- soil, Rec. III, 107; VIII, 756, 757; IX, 234; X, 731; XII, 927.
- study of methods, Rec. IX, 931.

Cultivators—

- for corn, tests, Rec. III, 851; IV, 810; VI, 415; XII, 44.
- tests, Rec. XII, 1097.

Culture—

- media—
 - apparatus for sterilizing, Rec. VII, 660.
 - as affected by bacteria, Rec. IX, 814.
 - effect on growth of bacteria, Rec. X, 123.
 - for differentiation of species, Rec. X, 1016.
 - preparation, Rec. VI, 389; XI, 122.
 - preservation, Rec. X, 322.
- of plants in sand cultures, Rec. V, 762.
- oven for bacteria, Rec. VIII, 473.
- tubes, filling, Rec. XI, 714.

Cultures—

- artificial—
 - of *Melanconium fuliginum*, Rec. V, 880.
 - soils for, Rec. XI, 514.
- in confined air in glass vessels, Rec. V, 845.
- plate, of bacteria, Rec. VIII, 473.

Cultures—Continued.

pure—

- for fermenting apple and grape must, Rec. IV, 517.
- ripening cream. (See CREAM RIPENING.)
- of yeasts, study, Rec. IV, 517; VII, 278; VIII, 473.

Cumquat, list of varieties, Rec. V, 396.

Cupressus— (See also CYPRESS.)

- lawsoniana*, notes, Rec. V, 54; VI, 143.
- macrocarpa*, notes, Rec. VI, 143.
- noolkatensis*, notes, Rec. VI, 143.
- thyoides*—

- as host of *Gymnosporangium*, Rec. II, 711.
- notes, Rec. VI, 143; VII, 774.

Cupressus, revision of genus, Rec. VII, 961.

Cuprous oxid, method of weighing, Rec. VII, 558.

Cupuliferæ—

- anatomy, Rec. VI, 279.
- embryology, Rec. VI, 195.

Curelionidae of Australia, Rec. XI, 957.

Cureulios, notes, Rec. X, 872.

Curd— (See also CHEESE MAKING.)

- bad flavor, Rec. XII, 385.
- buttermilk, analyses, Rec. V, 777.
- careful *v.* rough handling, Rec. XII, 385.
- casein, analyses, Rec. VI, 110.
- gassy, Rec. XII, 388, 984.
- gassy and—
 - stringy, Rec. XII, 389.
 - tainted, Rec. XI, 296.
- micro-organisms found in, Rec. V, 1047.
- test—
 - in cheese making, Rec. X, 698.
 - Wisconsin, description, Rec. XII, 593.

Curled dock—

- curelionid larvæ on, Rec. II, 292.
- law regarding, Rec. I, 324.
- notes, Rec. II, 293, 655; III, 508, 598; IV, 47, 334, 472, 699; V, 398, 497; VI, 145; IX, 453, 758.
- root system, Rec. IV, 45.

Currant—

- anthracnose, notes, Rec. I, 283.
- aphis, notes, Bul. 2, II, 119; Rec. VII, 231; X, 146, 164, 467, 869.

borer—

- American, imported, notes, Rec. IV, 58.
- American, notes, Rec. III, 313; IV, 416.
- imported, notes, Rec. I, 12; III, 313.
- imported, remedies, Rec. I, 138.
- borers, notes, Rec. II, 71, 333; III, 198; IV, 58; V, 985; VIII, 53, 69, 146, 907; IX, 138, 262; X, 164, 869.
- bush pest, remedies, Rec. VIII, 907.
- bushes, failure to bear fruit, Rec. X, 355.
- cane blight, Rec. VII, 691.
- cane disease, remedies, Rec. IX, 359.
- clusters, clipping, Rec. III, 297.
- disease, notes, Rec. V, 498; VIII, 53; XII, 262.
- diseases in the Hudson Valley, Rec. XII, 154.
- flies, notes, Rec. XII, 869.
- fly—
 - dark, Rec. X, 869.
 - notes, Rec. IX, 858.
 - yellow, Rec. X, 869.

Currant—Continued.

gall mite—

- black, notes, Rec. V, 740; VI, 65; XI, 272.
- black, remedies, Rec. XII, 663, 870.
- notes, Rec. VI, 316; IX, 74.
- remedies, Rec. XII, 772.

grafting in open air, Rec. V, 1018.

juice, composition, Rec. V, 648.

juices, fermentation, Rec. III, 555.

leaf blight, notes, Rec. VIII, 53; XI, 167.

leaf roller, notes, Rec. II, 420.

leaf spot, notes, Rec. III, 479; VI, 559; VIII, 53, 995; IX, 762; XI, 170; XII, 573.

maggot, notes, Rec. X, 866.

measuring worm, notes, Rec. I, 11.

moth—

- notes, Rec. VI, 56; VIII, 909.
- pepper-and-salt, Rec. X, 869.

powdery mildew—

- notes, Rec. V, 498; IX, 762.
- treatment, Rec. IV, 169.

rust, notes, Rec. X, 559, 969.

sawfly—

destruction of eggs, Rec. IV, 416.

imported, notes, Rec. III, 198; VIII, 69.

kerosene emulsion for, Rec. III, 291.

native, Rec. VIII, 69; X, 866, 869.

notes, Rec. V, 631.

(See also CURRANT WORM.)

scale, notes, Rec. X, 766.

spanworm, notes, Rec. IV, 58, 416; V, 206; IX, 371, 664, 858.

spot disease, Rec. III, 217; V, 59, 194; VII, 787.

spot disease, treatment, Rec. IV, 169; VI, 308.

stem girdler—

- notes, Rec. VI, 439; VII, 141; IX, 364.
- remedies, Rec. IX, 574.

vine in South Australia, Rec. X, 1044.

worm—

imported, notes, Bul. 2, II, 58; Rec. I, 291, V, 498; VIII, 418; IX, 463.

imported, remedies, Rec. I, 138.

insecticides for, Bul. 2, I, 145; Rec. II, 599.

notes, Bul. 2, II, 119; Rec. III, 46, 198, 291, 313, 792; IV, 840; VIII, 53, 69, 146, 999; IX, 138; X, 459.

remedies, Rec. III, 403.

Currants—

Alpine, notes, Rec. IV, 656.

analyses, Rec. II, 582; VII, 582; X, 754; XI, 1046.

analyses of juices, Rec. VI, 110.

black and red, coloring matter, Rec. III, 555.

Crandall, notes, Rec. I, 283; IV, 917; V, 586.

culture, Rec. IX, 650.

culture experiments, Rec. XI, 735.

dried, moth infesting, Rec. IX, 852.

fertilizer experiments, Rec. XI, 735, 1039; XII, 344, 648.

fruit development as affected by seed development, Rec. XI, 936.

golden, notes, Rec. III, 522.

Gordon, notes, Rec. IV, 656.

Grecian, culture, Rec. VII, 405.

Indian, notes, Rec. III, 522.

irrigation, Rec. XI, 735, 1039; XII, 344.

notes, Rec. II, 740; X, 757; XI, 251.

Currants—Continued.

propagating—

- and marketing, Rec. VIII, 890.
- from cuttings, Rec. VIII, 58.

pruning, Rec. IX, 755.

red—

and white, culture, Rec. VII, 771.

coloring matter in, Rec. III, 555.

notes, Rec. V, 793.

preservatives for exhibition purposes, Rec. XI, 649.

wild, notes, Rec. III, 522.

ripening as affected by copper salts, Rec. XII, 1045.

seedling, varieties, Rec. IX, 841.

spraying experiments, Rec. XI, 150.

value for jams, jellies, etc., Rec. VIII, 55.

varieties, Bul. 2, I, 183, 190; Bul. 2, II, 88, 91;

Rec. I, 84, 229; II, 5, 6, 50, 295, 322, 328, 354,

372, 392, 598, 653, 668, 742; III, 55, 314, 356, 860,

361, 402, 701, 722, 788; IV, 166, 436, 556, 650, 728,

917; V, 53, 190, 300, 302, 584, 593, 786, 793, 871,

877, 981, 985, 1073; VI, 52, 55, 56, 296, 423, 424,

427; VII, 128, 129, 214; VIII, 52, 134, 889; IX,

50, 244, 245, 353; X, 49, 253, 254, 436; XI, 150,

153, 251, 252, 452, 544, 547, 644, 844, 850, 929,

1048; XII, 237, 645, 1044.

white, preservatives for exhibition purposes, Rec. XI, 649.

wild—

black, notes, Rec. III, 522.

red, notes, Rec. III, 522.

yellow, flowering, notes, Rec. IV, 656.

Zante—

culture, Rec. XI, 650.

in South Australia, Rec. XI, 548.

Current meter, rating, Rec. XII, 696.

Currants—

electric, effect on instruments for measuring terrestrial magnetism, Rec. XII, 920.

electric, effect on sap flow, Rec. V, 650.

North Atlantic, and surface temperatures, Rec. V, 1087.

of the Great Lakes, study, Rec. VI, 19.

Curtis scale, notes, Rec. XII, 469.

Cuscuta. (See also DODDER.)

arvensis, notes, Rec. III, 803; VI, 554; X, 54.

denticulata, notes, Rec. III, 803.

epilinum, notes, Rec. X, 54.

epithymum, notes, Rec. III, 803; VI, 58; IX, 142; X, 54, 556.

europæa, on tobacco, Rec. VIII, 240.

gronovii—

affecting cucumbers, Rec. XII, 56.

notes, Rec. XI, 462, 750.

indecora, notes, Rec. X, 54.

monogyna—

on grapes, Rec. XI, 159.

grapes, remedies, Rec. IX, 653.

racemosa chiliana, notes, Rec. X, 54.

racemosa, notes, Rec. IV, 47; V, 912.

silina, notes, Rec. III, 598.

spp., physiology, Rec. V, 1028.

trifolii, notes, Rec. I, 24; II, 419; III, 217, 598; V, 529, 629; VI, 58; X, 556.

Cuscuta—

chemistry, Rec. VII, 407.

- Cuscuta*—Continued.
 eradication, Rec. VII, 511; IX, 565, 653, 1055; X, 360; XI, 750.
 geographical distribution of species in North America, Rec. XII, 720.
 germination, Rec. XII, 960.
 new species on alfalfa, Rec. XI, 1057.
 physiology, Rec. VI, 224.
 studies, Rec. XI, 462.
- Customs tariff of Martinique, Rec. V, 221.
- Cut grass—
 analyses, Bul. 2, 1, 108.
 Virginia, analyses, Rec. VI, 403.
- Cuterebra*—
fontanella, notes, Rec. V, 327.
lepusculi, notes, Rec. VIII, 507; IX, 469.
 spp., notes, Rec. IX, 774.
- Cuticularization and cutine, Rec. VII, 18.
- Cutrage—
 importance and necessity, Rec. IX, 951.
 physiology, Rec. IX, 950.
- Cutting bench fungus, Rec. VIII, 706, 801.
- Cuttings—
 and grafts, insect and fungus enemies, Rec. VI, 147.
 development of roots, Rec. IX, 921.
 distribution, Rec. X, 253.
 packing for shipment, Rec. VI, 638.
- Cutworm— (See also AGROTIS, CARNEADES, and HADENA.)
 brassy, notes, Rec. VI, 313.
 climbing, notes, Rec. IV, 354; VII, 967; VIII, 65, 68, 905; IX, 470.
 corn, notes, Rec. V, 63.
 glassy, notes, Rec. IV, 354; VIII, 906.
 greasy, notes, Rec. III, 175.
 reaping, notes, Rec. V, 402.
 red-backed, notes, Rec. IX, 856; X, 165.
 spotted, notes, Rec. V, 791.
- Cutworms—
 fungus diseases, Rec. III, 10.
 hymenopterous enemies, Rec. VI, 441.
 notes, Bul. 2, 1, 179; Rec. I, 21, 45, 120; II, 5, 71, 80, 81, 101, 170, 318, 334, 718, 719, 734; III, 53, 54, 198, 282, 298, 784, 792; IV, 254, 354; V, 63, 310, 402; VI, 65, 151, 314, 315, 442, 654, 915; VII, 40, 42, 696, 878; IX, 458, 664, 1065; X, 164, 168, 369, 457, 866; XI, 66.
 on carnation, Rec. IV, 285.
 grapes in California, Rec. V, 328.
 onions and celery, Rec. IV, 284.
 sugar beets, Rec. IV, 203.
 on tobacco—
 notes, Rec. X, 661; XI, 472.
 remedies, Rec. X, 660.
 prevalence and treatment, Rec. IV, 416.
 remedies, Rec. III, 889; IV, 58, 172, 284, 716; VI, 317, 441; VII, 40, 592; VIII, 64, 65, 66, 70, 146, 241, 321, 417, 418, 503, 612, 708, 905, 1003; X, 271, 1069; XI, 62, 267, 862; XII, 865.
 traps for, Rec. II, 269; IV, 172.
- Cyamopsis psaralioides*, culture experiments in India, Rec. V, 333.
- Cyanhydric acid, production in seeds, Rec. IX, 525.
- Cyanic acid in plants, Rec. V, 127.
- Cyanid fumes, effect on colors of flowers, Rec. VII, 506.
- Cyanids, determination of ammonia in liquids containing, Rec. V, 647.
- Cyanogen as an insecticide, Rec. II, 63.
- Cyanophyceæ, structure, Rec. VIII, 472.
- Cyanotis axillaris*, analyses, of seed, Rec. XI, 575.
- Cyathocotyle prussica*, notes, Rec. IX, 96.
- Cyathus plumbagineus*, notes, Rec. VIII, 671.
- Cybaodes incerta*, notes, Rec. X, 273.
- Cycas, new species, Rec. IV, 615.
- Cycas revoluta*—
 sex organs, Rec. X, 825.
 spermatazoids in, Rec. VIII, 670.
- Cyclamen*—
europæum, carbohydrates, Rec. IX, 24.
latifolium, cultural evolution, Rec. IX, 141.
- Cyclamen—
 classification and culture, Rec. IX, 1054.
 culture, Rec. X, 552.
 disease, Rec. VI, 826.
 root rot, Rec. VI, 1000.
 roots and tubers, Rec. VIII, 957.
 subject to bacterial disease, Rec. V, 1018.
- Cycles in meteorology, Rec. IX, 815.
- Cyclical changes in India, Rec. IX, 814.
- Cycloconium oleaginum*—
 notes, Rec. VI, 63; XI, 59, 362.
 treatment, Rec. XI, 554.
- Cycloloma*—
atriplicifolia, notes, Rec. VI, 552.
platyphyllum, notes, Rec. IV, 699; X, 121.
- Cyclone at Swabia, causes, Rec. X, 827.
- Cycloneda sanguinea*, notes, Rec. V, 409.
- Cyclones—
 and anticyclones, Rec. VII, 661.
 ascending theory, Rec. III, 926.
 mechanics, Rec. XI, 716.
 notes, Rec. XI, 432.
 of the temperate latitudes, Rec. VI, 702.
 studies, Rec. IX, 533.
 theory of centrifugal and ascending movement, Rec. IV, 315.
- Cyclonic storms, Rec. XI, 429.
- Cyclopelta obscura*, notes, Rec. VIII, 807.
- Cyclopodia horsfieldi*, n. sp., notes, Rec. XI, 871.
- Cydonia as host of Gymnosporangium, Rec. II, 712.
- Cylas formicarius*, notes, Rec. VI, 235; VII, 684; XI, 62; XII, 465.
- Cylindrocicola dendroctoni*, notes, Rec. IV, 642.
- Cylindrosporium*—
komarowi, n. sp., description, Rec. XII, 768, 1057.
padi. (See SHOT-HOLE FUNGUS.)
stachydis, notes, Rec. IV, 956.
- Cylindrosporium of chestnuts, Rec. V, 731.
- Cyllene*—
picta, notes, Rec. IX, 962; X, 1066; XI, 63.
robinæ, notes, Rec. III, 47; VII, 413; IX, 964.
- Cymatophora pampinaria*, notes, Rec. I, 134.
- Cymopterus panamintensis*, notes, Rec. VI, 114.
- Cynara scolymus*, culture, Rec. XI, 1047.
- Cynarase, new formation, Rec. XI, 888.
- Cynipidæ*, n. spp., notes, Rec. I, 213.
- Cynipidæ*, new genera and species, Rec. IX, 471

- Cynips calicis*—
notes, Rec. VII, 595.
transformations, Rec. VIII, 242.
- Cynodon dactylon*. (See BERMUDA GRASS.)
- Cynoglossum officinale*—
notes, Rec. V, 298.
root system, Rec. IV, 46.
- Cynomia pictifacies*, notes, Rec. XII, 974.
- Cynosurus cristatus*, notes, Rec. II, 238, 600; VI, 97.
- Cyperaceæ—
morphology, Rec. IX, 526, 812.
studies, Rec. X, 825.
- Cyperus*, culture, Rec. VII, 584.
- Cyperus*—
erythrorhizos, notes, Rec. VI, 404; X, 343.
esculentus. (See CHUFAS.)
rotundus—
notes, Rec. V, 161; VI, 431, 554; IX, 455; X, 1049; XI, 750.
root system, Rec. IV, 46.
sp., notes, Rec. X, 343.
- Cyphomandra betacea*, notes, Rec. VI, 53.
- Cypress—
bald—
as a timber tree, Rec. X, 441.
notes, Rec. V, 54.
deciduous, notes, Rec. II, 143.
golden pea-fruited, notes, Rec. V, 54.
Japan, notes, Rec. V, 54.
Lawson's—
notes, Rec. V, 54.
southern range, Rec. IX, 651.
pea-fruited, notes, Rec. V, 54.
twig borer, notes, Rec. II, 303.
- Cyprinodon macularius baileyi*, n. sp., notes, Rec. V, 90.
- Cypripedium*—
hirsutum, notes, Rec. X, 516.
parviflorum, notes, Rec. X, 516.
pubescens, poisonous influence of, Rec. V, 659.
regina, notes, Rec. X, 516.
spectabile, poisonous influence, Rec. V, 659.
- Cypripedium*, monograph, Rec. XI, 454.
- Cypripediums* as forcing plants, Rec. VII, 686.
- Cyrtacanthacris nigroviridis*, notes, Rec. XII, 465.
- Cyrtanema stabulans*, notes, Rec. IV, 58.
- Cyrtoneura*—
cæsia, notes, Rec. VI, 1002.
stabulans, notes, Rec. IX, 63.
- Cyrtophorus verrucosus*, notes, Rec. X, 168.
- Cysticercus fasciolaris*, notes, Rec. IX, 294.
- Cystococcus humicola*, on greenhouse plants, Rec. XI, 906.
- Cystopus*—
amaranthi, notes, Rec. V, 399.
bliti, notes, Rec. III, 783; IV, 50.
candidus—
notes, Rec. III, 161, 307; IV, 50, 51; V, 399; VI, 823; X, 155.
reproduction and fertilization, Rec. VII, 748.
structure, Rec. VIII, 28.
treatment, Rec. IV, 55.
ipomææ-pandurata, notes, Rec. II, 416; IV, 51; V, 399.
portulacæ, notes, Rec. IV, 50, 51; V, 399; VI, 823; XII, 254.
spinulosus, notes, Rec. V, 62, 399.
tragopogonis, notes, Rec. IV, 50; V, 399.
- Cytispora*—
celastrina, notes, Rec. VII, 838.
gleditschar, notes, Rec. VII, 838.
- Cytisus*—
laburnum, notes, Rec. IV, 654.
proliferus, notes, Rec. III, 596; V, 577.
proliferus albus, notes, Rec. VIII, 400, 401, 687; X, 245.
- Cytodites nudus*, notes, Rec. XII, 166, 894.
- Cytohelnthins in oysters, Rec. IV, 71.
- Cytoplasm structures, nuclear and cell division, Rec. VIII, 957.
- Cytoplasm, chemical nature, Rec. V, 254.
- Cytology—
experimental, Rec. X, 321.
new departure, Rec. XII, 114.
- Cytospora cerei*, notes, Rec. IX, 659; X, 562.
- Dactylis glomerata*. (See ORCHARD GRASS.)
- Dactyloctenium australiense*, n. sp., notes, Rec. XI, 709.
- Dactylopius* affecting citrus fruits, Rec. XI, 657.
- Dactylopius*— (See also MEALY BUGS.)
adonidum, notes, Rec. IX, 670; X, 62.
azoleæ, notes, Rec. X, 769.
brevipes, notes, Rec. XI, 1065.
bromelææ, notes, Rec. XI, 1065.
calceolaria, notes, Rec. VIII, 507; XII, 1067.
ceriferus, notes, Rec. VII, 594.
citri, notes, Rec. V, 1031; VI, 438, 443; VIII, 146; XI, 472; XII, 68.
clavigera, n. sp., notes, Rec. IX, 1070.
destructor, notes, Rec. V, 409; VI, 652; XI, 958; XII, 162, 369.
edgworthiæ, notes, Rec. IX, 1072.
kingii, notes, Rec. VIII, 711.
lichensioides, n. sp., Rec. VIII, 609.
longifilis, notes, Rec. VI, 652; XI, 958.
longispinus, notes, Rec. XI, 1065.
n. sp., notes, Rec. VII, 517.
pseudonipææ, notes, Rec. IX, 372.
spp., notes, Rec. V, 732; X, 569.
solani, notes, Rec. VI, 438; VII, 143.
trifolii, notes, Rec. VI, 652, 949.
- Dactylortyx*, revision of, Rec. IX, 1031.
- Dacus oleæ*, notes, Rec. XI, 558.
- Daddy long legs, notes, Rec. VI, 317.
- Daffodils—
basil rot, Rec. V, 1030, 1099; VI, 61.
color as related to soil composition, Rec. XI, 319.
history, Rec. XII, 855.
naturalization, Rec. X, 1045.
trumpet, notes, Rec. VII, 869.
- Dagger cocklebur. (See COCKLEBUR, SPINY.)
- Dagger moth, smeared, notes, Rec. VII, 42.
- Dahlia—
cactus, Rec. X, 1045.
cactus, notes, Rec. XI, 453.
diseases, treatment, Rec. XI, 752.
mildew, treatment, Rec. X, 448.
stalk borer, notes, Rec. VI, 316.
- Dahlias—
and chrysanthemums, insects affecting, Rec. V, 352, 791.
bibliography, Rec. IX, 141.
culture, Rec. VII, 868.
culture and propagation, Rec. IX, 356.
decorative, and cactus, Rec. XI, 453.
history and cultivation, Rec. IX, 756; X, 49.

- Dahlia—Continued.
 native, of Mexico, *Rec. IX*, 562.
 notes, *Rec. XII*, 1046.
 varieties, *Rec. VIII*, 888; *IX*, 356.
- Dahme, Germany, Experiment Station report, *Rec. IV*, 224.
- Dairies—
 construction, *Rec. III*, 436; *VII*, 900; *VIII*, 92.
 in France, management, *Rec. VII*, 255.
 Indiana, municipal control, *Rec. X*, 492.
 traveling—
 in Canada, *Rec. V*, 737; *VI*, 484; *VII*, 718; *VIII*, 1032.
 North Wales, *Rec. IV*, 787.
- Dairy—
 agent—
 of Manchester, report, *Rec. X*, 594; *XI*, 788.
 Sweden, report, *Rec. XII*, 289.
 and food commission—
 of Michigan, bulletin, *Rec. X*, 780.
 Ohio, *Rec. X*, 584.
 and food commissioner—
 of Ohio, report, *Rec. X*, 584.
 Pennsylvania, report, *Rec. IX*, 981; *X*, 382.
 and food laws of Pennsylvania, *Rec. IX*, 786.
 the weather, *Rec. XI*, 620, 819.
 apparatus— (*See also* CREAMERY, CHURNS, SEPARATORS, etc.)
 description, *Rec. III*, 932; *IV*, 189.
 tests, *Rec. III*, 890; *IV*, 364, 751; *V*, 260, 322, 1054; *VI*, 169; *VII*, 426; *VIII*, 88, 933; *X*, 590, 784.
 Association, German, *Rec. V*, 360, 927, 1046, 1047.
 associations—
 cooperative, *Rec. X*, 97.
 in United States and Canada, *Rec. IX*, 590; *X*, 98.
 bacteria, classification, *Rec. XII*, 1083.
 bacteriology, *Rec. IV*, 75, 113, 201, 202, 987; *V*, 361, 440, 454, 609, 656, 927, 1003, 1033, 1043, 1101; *VI*, 754; *VII*, 428, 806, 808; *VIII*, 259, 441; *IX*, 183, 185, 589, 689, 793, 990; *X*, 388, 389, 593, 792; *XI*, 688.
 bacteriology, handbook, *Rec. VI*, 482.
 barns— (*See also* COW BARN.)
 construction and ventilation, *Rec. IV*, 180; *VI*, 1029.
 description, *Rec. II*, 447; *IX*, 1083; *XI*, 595; *XII*, 396.
 Berg's lactoscope in, *Rec. VI*, 475.
 book of the, *Rec. VIII*, 835.
 breeds— (*See* Cows.)
 buildings—
 at Canada Station, *Rec. III*, 356.
 Kiel, description, *Rec. X*, 498.
 Minnesota Station, *Rec. IV*, 874.
 Ontario Agricultural College, *Rec. VI*, 485.
 construction, *Rec. XI*, 295.
 description, *Rec. I*, 286.
 bulletin, *Rec. VI*, 169; *VIII*, 265; *X*, 189.
 bureau of Massachusetts, report, *Rec. X*, 494.
 by-products, utilization, *Rec. X*, 582, 698.
 calendar for 1895, *Rec. VI*, 580.
 chemistry, text-book, *Rec. VIII*, 634.
- Dairy—Continued.
 commissioner—
 of Iowa, report, *Rec. XI*, 188.
 New York, report, *Rec. V*, 543.
 cooperative, in Belgium, *Rec. VII*, 256.
 courses, importance to the veterinarian, *Rec. VII*, 532.
 dangers surrounding, *Rec. X*, 189.
 Danish, *Rec. V*, 608.
 department, report, *Rec. X*, 388.
 education—
 in California, *Rec. XII*, 90.
 Denmark, *Rec. V*, 669.
 exhibit—
 at California State Fair, 1899, *Rec. XII*, 89.
 Toronto, Can., *Rec. XI*, 689.
 Experiment Station at Fribourg, report, *Rec. V*, 1102.
 experiments, *Rec. III*, 132, 499, 652; *V*, 640, 642, 643, 943; *VI*, 83; *VII*, 359, 629; *VIII*, 347, 1022; *X*, 493.
 (*See also* MILK, BUTTER, CHEESE, COWS, etc.)
 factories in New Zealand, *Rec. VII*, 162.
 farming—
 in New South Wales, *Rec. III*, 836.
 Washington, *Rec. III*, 727, 807.
 literature, *Rec. V*, 943, 1043, 1064.
 silage in, *Rec. III*, 88; *V*, 73.
 farms, rotation for, *Rec. VI*, 807; *VII*, 680; *VIII*, 884.
 feed, standard, analyses, *Rec. V*, 312; *XI*, 279.
 feeding in Pennsylvania, *Rec. IX*, 280.
 feeds, analyses, *Rec. VIII*, 1003; *XII*, 378, 587, 877.
 frauds, *Rec. VI*, 484.
 glassware, tests, *Rec. VIII*, 172; *IX*, 877, 899; *XII*, 289.
 herd— (*See also* Cows.)
 Bonn-Poppelsdorf, *Rec. IX*, 494, 588, 985.
 Cheshire, *Rec. IX*, 282.
 development, *Rec. VIII*, 174.
 formation and management, *Rec. VII*, 523; *IX*, 795.
 Kalnaes, *Rec. VIII*, 1032.
 Kleinhof-Tapiau, *Rec. VIII*, 440.
 record, *Rec. I*, 81; *II*, 577; *III*, 764; *V*, 73, 209, 320, 1064; *VI*, 328, 468, 659, 749, 928; *VII*, 64, 329, 425, 523, 629, 708, 885; *VIII*, 174, 440, 628, 931, 1022, 1032; *IX*, 282, 494, 588, 883, 985, 1081; *X*, 188, 295, 484, 492, 892; *XI*, 86, 188, 383, 485, 688, 883, 983, 1078; *XII*, 83, 185, 286, 288, 380, 384, 387, 479, 480, 592, 593, 781, 883, 1079.
 record, suggestions for keeping, *Rec. XII*, 388.
 regulations for, *Rec. VII*, 526.
 selection, *Rec. XII*, 982.
 Swedish management, *Rec. VI*, 573.
 testing, *Rec. XI*, 485.
 tests, *Rec. XI*, 673.
 veterinary control of, *Rec. IV*, 318.
 husbandry—
 pigs in, *Rec. VII*, 523.
 report, *Rec. IX*, 644.
 implements and machinery, Danish, *Rec. V*, 608.
 industry and typhoid fever, *Rec. XI*, 817.
 inspection, *Rec. IX*, 991; *X*, 892.

Dairy—Continued.

inspection—

in Belgium, Rec. XI, 788.

Michigan, Rec. XII, 823.

New York, Rec. XI, 489.

Institute at Hameln, Germany, reports, Rec. V, 1102; X, 388.

Institute at Proskau, report, Rec. V, 261; VII, 339; XI, 788.

institutions in the United States, Rec. XI, 390.

laws—

National and State, Rec. VI, 941; X, 510; XII, 986.

of California, Rec. XII, 986.

Iowa, Rec. XI, 188.

legislation in Canada, Rec. X, 791.

management, Rec. VII, 528.

manual, Rec. VIII, 835.

markets of Pennsylvania, Rec. X, 892.

methods, tests, Rec. X, 590.

milk soap from by-products of, Rec. V, 1067.

notes, Rec. IX, 494; X, 294.

observations in Italy, Rec. IV, 239.

officials, associations, and educational institutions, Rec. XII, 92.

physics, investigations, Rec. XI, 687.

produce, imports, Rec. IX, 291.

products, Rec. VI, 753; VII, 161; X, 491.

products—

adulteration, Rec. X, 492.

amyloid in, Rec. IV, 514.

analyses, Rec. I, 7; V, 207, 1025; VI, 110;

VIII, 426; IX, 377, 389; XI, 23; XII, 586.

average American analyses, Rec. V, 944.

bacteria in, Rec. I, 192; V, 1047; VII, 620; XI, 688.

chemistry, Rec. III, 132.

cholera bacilli in, Rec. VI, 18.

compilation of analyses, Rec. II, 582; III, 162.

composition, Rec. IV, 750, 773.

contamination, Rec. XII, 593.

Danish, Rec. V, 609.

digest of laws relating to, Rec. VI, 941.

examination, Rec. X, 514.

fertilizing constituents, Rec. III, 89.

keeping qualities, Rec. V, 440.

laws relating to, Rec. X, 999.

market price in Norway, Rec. V, 936.

methods of analysis, Rec. II, 90, 608; III, 632; IV, 115; V, 510; VI, 184; VII, 268; VIII, 277; IX, 411; X, 510; XI, 208; XII, 507.

micro-organisms in, Rec. V, 1047.

preservatives in, Rec. XII, 879.

preserved, prices in Germany, Rec. V, 265.

sampling, Rec. V, 66.

spread of contagious diseases by, Rec. IV, 785; V, 1046; XI, 817.

State standards, Rec. X, 791.

testing by Babcock test, Rec. X, 892.

tubercle bacilli in, Rec. XII, 987.

rules, Rec. XI, 984.

salt—

analyses, Rec. II, 582; X, 883.

studies, Rec. XI, 585, 999; XII, 91.

tests, Rec. VII, 626.

sanitation, Rec. XI, 390, 984.

Dairy—Continued.

school—

and experiment station at Mamirolle, France, Rec. VI, 344.

at Georgia Station, Rec. IV, 874.

Gustrow, Germany, Rec. III, 661.

New York State Station, Rec. III, 399; IV, 275.

Rütti-Zollikofen, Berne, Rec. X, 790; XII, 90.

building, description, Rec. IV, 197.

desirability, Rec. II, 587.

schools, Rec. IX, 291.

schools—

and dairy products, Rec. VI, 85.

in France, Rec. IX, 389.

Italy, Rec. IV, 329.

New York, Rec. III, 389, 885.

North Wales, Rec. V, 739.

Switzerland, Rec. IV, 390.

service, bacteriological examinations for, Rec. XI, 979.

stable, floor, and watering trough, Rec. II, 435.

station—

at Fribourg, bacteriological investigations, Rec. VII, 338.

Lodi, Italy, Rec. IV, 236.

statistics, Rec. VIII, 162.

statistics in Germany, Rec. IX, 590.

system of keeping records, Rec. XII, 479.

technology, Rec. V, 1066.

tests at Chicago Exposition, Rec. V, 270.

text-book, Rec. VIII, 442.

utensils—

care, Rec. IX, 589.

sterilization, Rec. XI, 188.

Dairying— (See also MILK, BUTTER, CHEESE, etc.)

acidimeter in, Rec. V, 440, 541.

advantages of Salt River Valley, Rec. VIII, 175.

American, Rec. VI, 344.

and cattle raising, Rec. IX, 290.

the weather, Rec. XI, 620, 819.

stock raising, manual, Rec. XI, 86.

antiseptics in, Rec. IV, 317; V, 824, 928, 1047.

as related to beet-sugar industry, Rec. XI, 535.

at farmers' institutes, Rec. X, 892.

the World's Fair, Rec. VI, 1026.

cooperative, Rec. XII, 485.

cooperative—

in Belgium, Rec. VII, 258; XI, 489.

Canada, Rec. X, 189.

Ireland, Rec. IX, 184, 291.

eastern v. western, Rec. XI, 587.

effect of margarin cheese on, Rec. V, 1060.

from a business standpoint, Rec. VI, 1026.

fraud in, Rec. VI, 484.

general discussion, Rec. XII, 388.

handbook, Rec. XI, 284.

in Argentina, Rec. VIII, 157.

Arizona, Rec. VIII, 175.

Australia, Rec. VII, 992; VIII, 175.

Belgium, Rec. III, 931.

California, Rec. IX, 88; XII, 89.

Canada, Rec. X, 689; XII, 178.

Dairying—Continued.

- in Cuba, Rec. XII, 90.
 Denmark, Rec. IV, 522, 526, 618; V, 608, 609;
 VII, 71, 255, 339, 425, 898, 992; VIII, 441;
 IX, 91, 689, 990; X, 594; XI, 188, 489, 789;
 XII, 287, 289.
 Europe, Rec. VIII, 1031; XII, 684.
 Finland, Rec. IX, 388.
 foreign countries, Rec. IX, 388.
 Georgia, Rec. V, 207; VI, 173; XII, 982.
 Holland, Rec. VII, 71, 339.
 India, Rec. VII, 992; VIII, 175.
 Ireland, Rec. VI, 941.
 Italy, Rec. IV, 239.
 Missouri and Kansas, Rec. IX, 278.
 Nebraska, Rec. IX, 279.
 New South Wales, Rec. III, 836; XII, 1082.
 New Zealand, Rec. V, 929.
 Normandy, Rec. IX, 184.
 North Carolina, Rec. VI, 483.
 North Dakota, Rec. IV, 914; IX, 279.
 North Germany, Rec. VII, 339.
 Norway, Rec. V, 936; IX, 388, 1089.
 Ontario, Rec. VI, 169.
 Oregon, Rec. IX, 886.
 Pennsylvania, Rec. XII, 698.
 Queensland, Rec. VIII, 732.
 Russia, Rec. IX, 590; XII, 1082.
 Schleswig-Holstein, Rec. VII, 71.
 Scotland, Rec. XI, 999.
 Siberia, Rec. VI, 580.
 South Dakota, Rec. IX, 279.
 southwestern France, Rec. IX, 795.
 Sweden, Rec. IX, 291, 387; XI, 490.
 Tennessee, Rec. V, 207.
 the Caucasus, Rec. XI, 86.
 the United States, Rec. V, 1085; VI, 483;
 VII, 992; X, 594; XII, 287, 484.
 Victoria, Rec. VI, 483.
 Victoria, manual, Rec. XI, 888.
 Washington, Rec. III, 727, 807.
 Wisconsin, Rec. VII, 986.
 literature, Rec. V, 943, 1043.
 new methods, Rec. V, 824.
 notes, Rec. XI, 1084; XII, 986.
 pasteurization, importance of, Rec. X, 493.
 plants useful in, Rec. V, 1066.
 practical hints, Rec. XI, 688.
 progress in, Rec. VI, 941; IX, 689; XI, 788.
 profits of, Rec. VII, 339.
 refrigerating machines, Rec. VIII, 1032; IX,
 1088.
 refrigeration in, Rec. XI, 87.
 relation to soil exhaustion, Rec. XII, 384.
 sanitary aspects, Rec. XI, 390, 984.
 scientific methods, Rec. VI, 1026.
 technical education in, Rec. VI, 174.
 text-book, Rec. V, 360, 936.
 use of antiseptics in, Rec. VI, 317.
 value of Babcock milk test in, Rec. VI, 1025.
 winter, Rec. V, 501.
 Dairymen and farmers, handbook for, Rec. XI,
 883.
 Dairymen—
 books for, Rec. XI, 999.
 pocketbook for, Rec. IX, 1089.

Dairymen's—

- and creamery associations of Ontario, reports,
 Rec. X, 189.
 convention in Sweden, Rec. XI, 790.
 Daisy—
 digestibility, Bul. 2, II, 55.
 electroculture, Rec. IV, 351.
 oxe-eye—
 analyses, Rec. VII, 155.
 eradication, Rec. XI, 159, 749.
 notes, Rec. IV, 47, 591; V, 598, 529; VI,
 224, 822; XI, 354, 599.
 root system, Rec. IV, 46, 472.
 yellow, notes, Rec. IX, 846; XI, 354.
Dakrura convolutella, notes, Rec. IX, 858; X, 869;
 XII, 68.
Dalbergia sisso, notes, Rec. VII, 870.
 Dalmatian insect powder, Rec. IV, 58.
 Dalum, Denmark, Agricultural College, Rec. V,
 523.
 Damping off—
 fungus, undetermined species, Rec. IV, 400.
 notes, Rec. IV, 53; V, 663; VII, 141, 220; IX,
 456.
 of seedlings, Rec. VIII, 899.
 treatment, Rec. X, 1054.
 Dams, earthen—
 construction, Rec. VIII, 934.
 for irrigation reservoirs, Rec. V, 1104.
 Damson mite, notes, Rec. VII, 413, 700.
Danaus archippus, notes, Rec. XII, 69.
 Dandelion—
Barkhausia grafted on, Rec. V, 1089.
 fall, notes, Rec. III, 396; V, 60.
 notes, Rec. III, 308; V, 398; VIII, 795.
 root system, Rec. IV, 45.
 Dandelions—
 as a market crop, Bul. 2, II, 90.
 culture, Rec. IX, 357.
 forcing, Rec. XII, 952.
 Danish Agricultural Councilors, report, Rec. VI,
 756.
 Danish Agricultural Society, Royal, reports, Rec.
 V, 740; VI, 756; VII, 813; X, 98.
 Danish agriculture, division of land, Rec. IX, 999.
 Danish Seed Company, report, Rec. IX, 454; X,
 259.
 Danish Veterinary School (Royal) and Agricul-
 tural College, history, Rec. VII, 987.
Danthonia— (See also OAT GRASS.)
californica, notes, Rec. II, 321; IV, 951.
compressa, notes, Rec. I, 317.
glabra, n. sp., notes, Rec. VIII, 567.
intermedia, notes, Rec. II, 321.
parryi, notes, Rec. VII, 748.
semiannularis, notes, Rec. X, 416.
spicata—
 analyses, Rec. III, 629.
 notes, Rec. I, 317.
 Danzig, Germany, Experiment Station, report,
 Rec. III, 258.
Daphne cneorum, seed production, Rec. XII, 855.
Daremma undulosa, notes, Rec. V, 206.
Darluc filamentum—
 as a rust parasite, Rec. XII, 358.
 notes, Rec. IX, 568; X, 651; XII, 262, 962.

- Darmstadt, Germany, Experiment Station at, Rec. III, 70, 275, 929, 933; V, 131, 261; VII, 3, 631.
- Darnel—
cause of poisonous effects, Rec. XI, 906.
fungus, Rec. X, 764.
notes, Rec. III, 598.
- Dasychira wilkommii*, notes, Rec. XI, 870.
- Dasyllirion*—
texanum, notes, Rec. VIII, 306.
wheeleri, notes, Rec. VIII, 306.
- Dasycephala wilkommii* on larch trees, Rec. IX, 957.
- Dasyneura kiefferi*, notes, Rec. VII, 792.
- Datana*—
angustii—
injuring pecans, Rec. X, 570.
notes, Rec. II, 116; III, 54, 176; V, 101.
integerrima, notes, Rec. V, 884; IX, 1065; XI, 952.
ministra, notes, Rec. II, 64; III, 54, 55, 176, 298; V, 101, 310; IX, 858.
perspicua mesillæ, notes, Rec. IX, 471.
- Date—
and fig wine, Rec. VI, 869.
culture in Antigua, Rec. VII, 868.
- Date palm—
African, notes, Rec. V, 589.
culture, Rec. XII, 246, 798.
culture, climatic data, Rec. X, 325.
in United States, Rec. XI, 296.
investigations, Rec. X, 851.
leaf spot, Rec. IX, 324.
scale—
experiments, Rec. III, 183.
notes, Rec. VII, 411.
seedlings, distribution, Rec. III, 597.
- Date palms—
notes, Rec. V, 587; VI, 548, 636; XI, 239, 253; XII, 945.
varieties, Rec. X, 254; XI, 850.
- Dates—
analyses, Rec. XI, 850.
culture in Tunis, Rec. VIII, 701.
- Datura*—
leichhardtii, poisonous to stock, Rec. XI, 1057.
metaloides, notes, Rec. III, 598.
stramonium—
as affected by carbon dioxide, Rec. XII, 110.
crossing, Bul. 2, I, 105.
notes, Rec. III, 598; IV, 334; V, 973; VII, 38; X, 516.
- tatula*—
notes, Rec. X, 516.
root system, Rec. IV, 46.
- Daturic acid, investigations, Rec. IV, 516.
- Daucus carota*. (See CARROT, WILD.)
- Dauphin chestnut, notes, Rec. VII, 687.
- Davainea*—
cesticollus in fowls, Rec. XII, 894.
proglottina in fowls, Rec. XII, 894.
- Davidson, S. P., notes, Rec. XII, 1015.
- Davidsonia pruriens*, notes, Rec. X, 355.
- Deadly nightshade poisoning, treatment, Rec. XI, 495.
- Death cup, notes, Rec. IX, 527; X, 516.
- Death tick, notes, Rec. VII, 231.
- "Death to Rose Bugs," analyses, Rec. III, 162; V, 206.
- Death Valley Expedition—
botany, Rec. VI, 113.
report, Rec. V, 90.
- Death web of young trout, Rec. VI, 564.
- Death's head moth, Rec. VIII, 612.
- Decapitalization of scientific names, Rec. VI, 487.
- Decapitation, effect on plant organs, Rec. VI, 870.
- Decay of fruits, Rec. VI, 825.
- Decimal notation of time, Rec. XI, 1076.
- Deciduous trees—
and shrubs of Japan, Rec. VII, 839.
geographical distribution, Rec. VI, 550.
varieties, Bul. 2, II, 91.
- Decticus*—
albifrons, notes, Rec. VI, 151.
verrucivorus, notes, Rec. XII, 974.
- Deep stall—
system for conservation of manure, Rec. IX, 338.
v. ordinary stalls for steers, Rec. X, 573.
- Deer—
botfly, Rec. VIII, 909.
forest fly, Rec. VIII, 909.
new, from Texas and Mexico, Rec. IX, 1030.
- Deer park grasses, notes, Rec. I, 316.
- Deer tongue grass, analyses, Rec. III, 629.
- Deer weed, notes, Rec. VIII, 306.
- Defecation of sorghum juices, Rec. IV, 954.
- Deforestation—
and the public health, Rec. IV, 872.
effect on soil fertility, Rec. IX, 434.
of North Louisiana soils, danger from, Rec. V, 285.
- "De Graff's Bug Destroyer," analyses, Rec. III, 162; V, 206.
- Dehiscence of nutmeg fruit, Rec. XI, 121.
- Dehorner, chemical, analysis, Rec. V, 205.
- Dehorning—
cattle, Rec. IV, 187; V, 204; VI, 666; VII, 155; X, 395; XI, 894; XII, 798.
compounds, tests, Rec. V, 608.
effect on milk production, Bul. 2, I, 214; Rec. II, 429; VII, 56; XII, 782.
experiments, Bul. 2, I, 26; Rec. V, 204.
laws regarding, Rec. V, 204.
methods, Bul. 2, I, 184; Rec. I, 153, 233.
notes, Rec. XI, 191, 894, 1070; XII, 194, 792.
steers, Rec. I, 153; XI, 1070; XII, 599.
- Delarvation, studies, Rec. IX, 471.
- Delphacidae, North American, review, Rec. X, 167.
- Delphax maidis*, notes, Rec. IX, 1065; X, 658.
- Delphinium*—
azureum, notes, Rec. III, 52.
geyeri, notes, Rec. X, 516.
glaucum, notes, Rec. XII, 891.
menziesii, notes, Rec. X, 516.
recurvatum, notes, Rec. X, 516.
spp., notes, Rec. IV, 47, 653; V, 319.
tricornis, Rec. X, 516.
trollifolium, notes, Rec. X, 516.
- Delphinium, monograph, Rec. VII, 18.
- Deltocephalus*—
abbreviatus, notes, Rec. IX, 153.
albidus, notes, Rec. IX, 153.
atropuncta, notes, Rec. X, 372.
blandus, Rec. X, 372.
compactus, notes, Rec. IX, 153.

Deltocephalus—Continued.

- concentricus*, n. sp., notes, **Rec. VI**, 564.
configuratus, notes, **Rec. IX**, 153.
cookei, **Rec. X**, 372.
debelis, notes, **Rec. III**, 218; **IV**, 667; **V**, 62, 101; **IX**, 153, 753.
fuscinerosus, n. sp., notes, **Rec. VI**, 564.
inflatus, notes, **Rec. IX**, 153.
inimicus, notes, **Rec. III**, 218; **IV**, 667; **V**, 62, 101, 791; **VIII**, 505; **IX**, 153.
labiata, notes, **Rec. X**, 372.
melsheimeri, notes, **Rec. IX**, 153.
minimus, notes, **Rec. IX**, 153.
oculatus, notes, **Rec. IX**, 153.
parvulus, notes, **Rec. X**, 372.
pectinatus, notes, **Rec. IX**, 153.
reflexus, notes, **Rec. IX**, 153.
sayi, notes, **Rec. IX**, 153.
signatifrons, notes, **Rec. IX**, 153.
sylvestris, notes, **Rec. IX**, 153.
weedi, notes, **Rec. IX**, 153.

Dematium, morphology and biology, **Rec. VII**, 371.*Dematium pullulans*—

- conidia formation, **Rec. XII**, 912.
 notes, **Rec. VII**, 224; **XII**, 718.
 spore formation, **Rec. XI**, 122, 322.

Dematophora—

- glomerata*, notes, **Rec. V**, 529.

necatrix—

- as a cause of grape pourridie, **Rec. VI**, 60.
 notes, **Rec. VII**, 695, 769, 965; **X**, 156, 763, 865, 971.
 on black pepper, **Rec. VII**, 311.

Demodex, bibliography, **Rec. XII**, 876.Denaturation of margarín, **Rec. X**, 1096.*Dendrocoris humeralis*, notes, **Rec. IX**, 675.*Dendroctonus*—

- brevicornis*, **Rec. XII**, 64.
frontalis—
 injury to pine forests, **Rec. IV**, 699.
 notes, **Rec. V**, 311, 516; **VI**, 654; **IX**, 669, 857; **XI**, 475, 763.
polygraphus rufipennis, notes, **Rec. XII**, 166.
rufipennis, notes, **Rec. X**, 570, 871.
similis, notes, **Rec. XII**, 64.
simplex, notes, **Rec. XI**, 763.
terebrens, notes, **Rec. VI**, 654.

Dendrolene—

- as an insecticide, **Rec. VII**, 515; **VIII**, 418, 709, 904, 912; **IX**, 352.
 effect on young trees, **Rec. VIII**, 70; **X**, 269.
 for apple-tree borers, **Rec. IX**, 560.
 injury to peach trees, **Rec. X**, 352.

Dendroneura sacchari, notes, **Rec. X**, 570, 769.*Dendrophagus globosus*, n. sp., studies, **Rec. XII**, 459.*Dendrotettix*—

- longipennis*, notes, **Rec. IV**, 760, 852.
quercus, n. sp., notes, **Rec. IV**, 852.

Dendryphium curtipes, notes, **Rec. VII**, 838.

Denitrification—

- action of *Bacillus subtilis* in, **Rec. X**, 1016.
 and farm manure, **Rec. X**, 235.
 experiments, **Rec. XII**, 626, 728, 734, 928.
 in soils, **Rec. IV**, 614; **XI**, 32.
 of manures in the soil, **Rec. XI**, 830.
 processes in nature, **Rec. XI**, 33.

Denitrification—Continued.

- studies, **Rec. III**, 898; **VIII**, 574; **IX**, 354, 536, 543, 812, 933; **X**, 619, 620; **XI**, 831; **XII**, 115, 915.

Denitrifying organisms, **Rec. X**, 620, 621, 929.

Denmark—

- agricultural—
 and botanical studies in, **Rec. VII**, 925.
 colleges in, **Rec. IX**, 709.
 institutions, **Rec. X**, 98, 198.
 schools, **Rec. IX**, 298, 398; **X**, 98.

Dennett grass, analyses, **Rec. VI**, 404.

Deposits—

- creek, analyses, **Rec. X**, 835.
 marsh, analyses, **Rec. X**, 835.
 tidal, **Rec. X**, 835.

Depressaria—

- heracliana*, notes, **Rec. IV**, 416, 667.

persicaella—

- notes, **Rec. XI**, 954.
 n. sp., notes, **Rec. XI**, 954.

Deræocoris rapidus, notes, **Rec. II**, 319.Derecho of Ohio, **Rec. XI**, 430.*Dermacentor*—

- americanus*, notes, **Rec. XI**, 173, 588; **XII**, 973.
occidentalis, notes, **Rec. XI**, 173.

Dermanyssus, bibliography, **Rec. XII**, 867.*Dermanyssus gallinæ*—

- notes, **Rec. IX**, 67.
 structure, **Rec. IX**, 74.

Dermaptera of Austro-Hungary and Germany, **Rec. XII**, 1068.Dermatitis, pustulant, **Rec. XI**, 291.Dermatobia, bibliography, **Rec. XII**, 867.*Dermatobia cyaniventris*, **Rec. IX**, 670.Dermatol as an antiseptic, **Rec. IV**, 360.Dermatology, recent progress, **Rec. XI**, 392.

Dermatomycosis—

- of fowls, investigation, **Rec. XII**, 94.
 studies, **Rec. XII**, 191.

Dermestes—

- lardarius*, notes, **Rec. I**, 224; **VIII**, 68; **IX**, 65.
vulpinus, notes, **Rec. VII**, 792; **VIII**, 908; **XI**, 472, 767.

Dermestidæ as household pests, **Rec. VIII**, 415.*Derostenus*—

- antiopæ*, notes, **Rec. II**, 116.
splendens, parasite, **Rec. II**, 731.

Derotmæna, monograph, **Rec. XII**, 166.*Deschampsia*—

- cæspitosa*, notes, **Rec. II**, 321; **IV**, 498; **VIII**, 28.
danthonioides, notes, **Rec. II**, 321.
elongata, notes, **Rec. IV**, 951.
flexuosa, notes, **Rec. II**, 321.
holciformis, notes, **Rec. IV**, 951.

Desert countries, future, **Rec. XII**, 732.Desert of Sahara, utilization, **Rec. VI**, 513.*Desiantha caudata*, notes, **Rec. XII**, 367.Desiccators, shelf, **Rec. XI**, 212.*Desmanthus fruticosus*, n. sp., notes, **Rec. IV**, 374.*Desmia maculalis*, notes, **Bul. 2, I**, 177; **Rec. II**, 318; **III**, 475; **VIII**, 803, 909; **IX**, 371.*Desmodium*—

- molle*—
 culture experiments, **Rec. IV**, 646.
 notes, **Rec. II**, 491, 643; **IV**, 248; **V**, 176; **VI**, 35, 96; **VIII**, 892.
tortuosum, notes, **Rec. IX**, 41; **XI**, 339.

Deutzia—*crenata*, notes, Rec. IV, 655; VIII, 314.*gracilis*, notes, Rec. IV, 655; VIII, 314.

Deventer, Netherlands, experimental garden at, Rec. V, 669.

Devil's horse, notes, Rec. V, 499.

Devon—

cattle, notes, Rec. XI, 983.

cows—

analysis of milk, Rec. V, 945.

feeding tests, Rec. IV, 255, 263, 268, 273; VI, 1014; VII, 45; VIII, 614.

Devonian bacteria, studies, Rec. VII, 928.

Dew—

and frost formation, Rec. VI, 702.

formation and effect on plant life, Rec. III, 927.

measurement, Rec. IX, 1032.

point at Honolulu, tables, Rec. XII, 25.

Dewberries—

cross fertilization, Rec. II, 509.

cultivation, Rec. VII, 585.

culture, Rec. VIII, 980.

fungicides and insecticides for, Rec. V, 684.

habits of growth, Rec. III, 523.

notes, Rec. VI, 728; X, 49, 547; XI, 251; XII, 854.

varieties, Bul. 2, I, 190; Bul. 2, II, 88; Rec. II, 295, 354, 668; III, 523; IV, 556, 651, 652; V, 53, 190, 496, 681, 786, 870; VI, 142, 988; VII, 34, 128, 405, 502; VIII, 231, 312, 601, 980; IX, 137, 354, 1052; X, 255.

Dewberry, improved hybrid, Rec. VIII, 55.

Dexter Kerry cows, yield and quality of milk, Rec. II, 404.

Dextran, bacteriology, Rec. VII, 647.

Dextrin—

and maltose from starch, Rec. VI, 965.

as reserve material in plants, Rec. XI, 216.

cane sugar in mixtures containing, Rec. V, 538.

fermenting yeast, Rec. VIII, 472.

Dextromaltose, feeding experiments, Rec. IV, 519.

Dextrose—

and levulose in sweet wine and honey, Rec. VI, 868; VII, 91.

as affected by ammonia, Rec. VI, 775.

birotation, Rec. V, 251; VII, 557; IX, 225.

cane sugar from, Rec. X, 219.

cupric oxid reducing power, Rec. IX, 418.

determination, Rec. VII, 91, 558; VIII, 460.

determination in presence of cane sugar and levulose, Rec. IV, 388; XI, 614.

fuel value, Rec. III, 386.

identification, Rec. X, 920.

in beet leaves, Rec. XII, 214, 309, 912.

multirotation, Rec. VII, 645.

preparation, Rec. III, 831.

Dejeuxia—*canadensis*, notes, Rec. II, 321.*lapponica*, notes, Rec. II, 321.*stricta*, notes, Rec. II, 321.*syrtatica*, notes, Rec. II, 321.*Diabrotica*— (See also CUCUMBER BEETLES.)*longicornis*—

notes, Rec. I, 44, 45, 120; II, 81; III, 53, 55;

VI, 150, 314; VII, 697; VIII, 505; XI, 952.

on sugar beets, Rec. IV, 203.

Diabrotica—Continued.*nitida*, notes, Rec. X, 769.*soror*, notes, Rec. II, 81; IX, 963.*tenella*, notes, Rec. IV, 373; V, 992.*12-punctata*, notes, Rec. II, 81, 169; III, 55, 230, 414, 657; IV, 839; V, 101, 205; VI, 235; VII, 201, 878; X, 548, 570, 1061; XI, 471, 472, 952, 1100; XII, 860.*vittata*—

notes, Bul. 2, I, 101; Bul. 2, II, 119; Rec. I, 21, 22, 45, 290; II, 292, 318, 659; III, 55, 175, 176, 198, 309, 792; IV, 354; V, 404; VI, 833; VII, 685, 968; IX, 70, 261, 856; X, 66, 165, 548, 570; XI, 364, 864, 952; XII, 575, 974.

on sugar beets, Rec. IV, 203.

remedies, Rec. IV, 58.

Diabotica—

in New Mexico, Rec. VIII, 808.

North American species, Rec. VIII, 808.

origin and development of North American species, Rec. VII, 699; VIII, 808.

remedies, Rec. VIII, 708.

Dialysis—

of honey, Rec. IV, 781.

value in judging honey, Rec. V, 647.

Diamond-back moth, notes, Rec. II, 654; III, 359;

IV, 254, 415; V, 101, 311, 685; VI, 316; VII, 144,

147; VIII, 146, 417; X, 164; XI, 765, 952; XII, 367.

Dianthus grafted on *Lychinis dioica*, Rec. V, 1089.*Diaperomera femorata*, notes, Rec. IX, 964.*Diaporthe radicina*, notes, Rec. VIII, 867.*Diapromorpha melanopus* affecting tea, Rec. XI, 1062.

Diarrhea—

contagious, of calves, Rec. VI, 576.

infectious, of calves, treatment, Rec. XII, 395, 791.

in young pigs, etiology, Rec. XI, 1092.

parasitic, in young stock, Rec. V, 439.

Diaspidiotus, North American species, Rec. XI, 657.*Diaspis*—*amygdali*, notes, Rec. X, 1060; XI, 63, 368; XII, 1057.*cacti*, notes, Rec. VIII, 146; XII, 162.*calyptroides cacti*, notes, Rec. XI, 1063.*chilensis*, notes, Rec. VII, 517.*fallax*—

notes, Rec. XI, 870.

on American fruit, Rec. XII, 971.

lanatus. (See PEACH SCALE, NEW.)*ostreaformis*, locomotion of larvæ, Rec. XII, 869.*patelliformis*, notes, Rec. VI, 649.*rose*. (See ROSE SCALE.)

Diastase—

as affected by light, Rec. VI, 387; IX, 116, 526.

chemistry, Rec. VII, 182; VIII, 368; IX, 620, 723.

effect on—

reserve cellulose, Rec. VI, 966.

starch, Rec. V, 538, 648; VII, 279, 833; VIII, 472, 742; IX, 120, 220, 225, 418.

starch, noncrystallizable products, Rec. IV, 516.

Diastase—Continued.

- formation—
 - by fungi, Rec. X, 417.
 - in sugar beets, Rec. IX, 526.
- functions in plants, Rec. XII, 615.
- inhibition by oxidizing enzymes, Rec. XII, 217.
- in broken vines, Rec. VII, 20.
- leaves of plants, detection, Rec. V, 538.
- plants, Rec. VI, 786.
- the endosperm, occurrence, Rec. IV, 984.
- urine, determination, Rec. XI, 23.
- of barley, Rec. VII, 927; X, 314.
- proteolytic—
 - of malt, Rec. XII, 722, 723.
 - malt as affected by mineral substances, Rec. XII, 916.
 - yeast extract, Rec. XI, 715.
- studies, Rec. IV, 983; IX, 1029; X, 1017.
- Diastases, secretion, Rec. XII, 118.
- Diastatic—
 - ferments—
 - as affected by heat, Rec. IX, 924.
 - effect on reserve cellulose, Rec. VI, 873.
 - power—
 - of malt, determination, Rec. VIII, 198, 459.
 - quantitative determination, Rec. X, 1017.
 - substances—
 - from fungus growth, Rec. X, 1017.
 - testing, Rec. IX, 924.

Diastictis—

- benigna*, notes, Rec. X, 372.
- inceptaria*, notes, Rec. IX, 69.
- ribearia*, notes, Rec. VIII, 69; IX, 371, 858.
- sericeata*, notes, Rec. X, 372.

Diastrophus—

- cuscutæformis*, notes, Rec. IV, 838; IX, 965.
- nebulosus*, notes, Rec. IV, 838; IX, 965.
- rubi*, notes, Rec. IX, 965.
- turgidis*, notes, Rec. IX, 965.

Diatrea—

- saccharalis*, notes, Rec. III, 414; VIII, 613; X, 975; XI, 952; XII, 661.

striatalis—

- notes, Rec. III, 278; X, 167, 570.
- parasites, Rec. VIII, 69; XII, 469.

Dicalcium phosphate—

- action of water on, Rec. V, 1029.
- analyses, Rec. XII, 931.
- as a preservative for manure, Rec. V, 330.

Dicentra spectabilis, notes, Rec. IV, 653.*Dicerca divaricata*, notes, Rec. X, 168.*Dichelonycha elongata*, notes, Rec. X, 168.*Dichelia sulphureana*, notes, Rec. IX, 370.*Dichromena*—

- latifolia*, notes, Rec. IX, 812.
- leucophylla*, notes, Rec. IX, 812.

Dicotyledons—

- nuclear division, Rec. VIII, 957.
- replacement of roots, Rec. IX, 227.

Dicranaura—

- cockerellii*, notes, Rec. VIII, 611.
- communis*, notes, Rec. X, 770.
- cruentata*, notes, Rec. X, 770.
- maculata*, notes, Rec. X, 770.
- quadrivittata*, notes, Rec. X, 770.

Dicranaura—Continued.

- unipunctata*, notes, Rec. X, 770.
- vinula*, notes, Rec. XII, 1062.
- Dicranaura* secreting caustic potash, Rec. VII, 517.
- Dicranodontium*—
 - millspaughii*, notes, Rec. IV, 642.
 - virginicus*, notes, Rec. IV, 642.
- Dictamnus fraxinella*, notes, Rec. IV, 653.
- Dietyophora pallida*, notes, Rec. XII, 1067.
- Dictyosporium opacum*, notes, Rec. XII, 567.
- Dicyanogen, poisonous action, Rec. VI, 115.
- Dicypus minimus*, notes, Rec. X, 1068; XI, 471.
- Didymosporium rhoinum*, notes, Rec. VIII, 671.
- Die back—
 - of citrus fruits, notes, Rec. XII, 463.
 - remedies, Rec. VIII, 63.

Dicrocephala—

- coccinea*, notes, Rec. II, 80; IX, 153.
- flaviceps*, notes, Rec. VIII, 1002.
- millipes*, notes, Rec. II, 80; III, 218; V, 62, 101; IX, 153.
- novaboracensis*, notes, Rec. II, 80; IX, 153.
- versuta*, notes, Rec. II, 80.
- Diervilla rosea*, notes, Rec. IV, 655.

Diet—

- book, Rec. XI, 278.
- effect on—
 - bacteria in feces, Rec. IX, 480.
 - uric acid content of urine, Rec. VIII, 331,
- for school boys, Rec. VIII, 330.
- sick and invalids, Rec. VIII, 155.
- in ancient times, Rec. XI, 183.
- health and disease, Rec. VIII, 156, 331.
- Italian hospitals, Rec. X, 884.
- warm climates, Rec. XII, 981.
- mixed, digestibility, Rec. IX, 780.
- of laborers in the Leeward Islands, Rec. XII, 476.
- peasants, Rec. XII, 1077.
- prisoners in the Leeward Islands, Rec. XII, 476.
- value of fruit and vegetables in, Rec. IX, 175.

Dietaries—

- actual, study of, Rec. V, 595.
- American, Rec. III, 214, 672, 673; IV, 60, 63.
- and dietary standards, Rec. VIII, 329.
- economic bearing, Rec. IV, 63.
- European, Rec. III, 214, 673; IV, 60.
- for hospitals for the insane, Rec. XI, 971; XII, 877.
- for people of different classes, Rec. III, 214.
- hospital, Rec. VIII, 81.
- iron in, Rec. VIII, 81.
- of French Canadians, Rec. IV, 60.
- prisons in Scotland, Rec. XI, 575.
- students in India, Rec. X, 780.

Dietary—

- experiment with somatose, Rec. VII, 890.
- of a Berlin prison, Rec. XII, 79.
- standards, Rec. IV, 62; VII, 596; VIII, 924; IX, 873.
- studies, Rec. IV, 59, 63; VI, 444; VII, 596; VIII, 71, 151, 419, 509, 614, 924; IX, 779; XII, 476, 677.
- studies—
 - in Alabama, Rec. IX, 160.
 - Boston, Rec. IX, 1075.
 - Chicago, Rec. X, 976.

Dietary—Continued.

studies—continued.

- in Italy, Rec. IX, 265.
- Maine, Rec. IX, 162.
- New Jersey, Rec. IX, 81.
- New Mexico, Rec. IX, 264; X, 573.
- New York City, Rec. IX, 1074.
- Pennsylvania, Rec. X, 173.
- Russia, Rec. X, 678.
- Tennessee, Rec. X, 171.
- the United States, Rec. X, 663; XI, 482.
- Virginia, eastern, Rec. XI, 961.
- of a bicycle rider, Rec. XI, 375.
- a blacksmith, Rec. V, 595.
- a football team, Rec. XII, 677.
- Sandow, Rec. IX, 780.
- university boat crews, Rec. XII, 168.

Dietetic preparations of recent origin, Rec. XI, 672.

Dietetics—

- and dietetic treatment, handbook, Rec. XI, 380.
- warm weather, Rec. IX, 88.
- with reference to diet in disease, Rec. XI, 380.

Diffusion—

- residues. (*See* BEET PULP.)
- residues, notes, Rec. V, 801.
- juices—

- analyses, Rec. II, 55.
- refining with magnesia, Rec. V, 735.

Digest of reports of experiment stations, Rec. III, 106.

Digestibility—

- and food value of cereals, Rec. V, 664, 811.
- as affected by—
- combinations of food, Rec. VII, 884.
- ferments, Rec. VI, 162.
- salt, Rec. VIII, 620.
- of feeding stuffs— (*See* *different kinds*.)
- by different animals, Rec. X, 1083.
- determination, Rec. IX, 504.
- of mixed diet, Rec. X, 664.
- rations, Rec. V, 68, 531, 534; X, 1081.
- of rations—
- as affected by fat, Rec. IX, 576.
- affected by potatoes and roots, Rec. IX, 1082.
- calculated and actual, Rec. X, 478.
- for pigs, determination, Rec. II, 414.

Digestible nutrients in food materials, Rec. IX, 786.

Digestion—

- activity in pigs, Rec. V, 732.
- artificial, as affected by—
- chloroform, Rec. V, 732; VI, 14.
- decoctions of tea and coffee, Rec. V, 259, 536.
- various substances, Rec. IX, 783.
- artificial—
- by pepsin, Rec. VII, 553.
- criticism of methods, Rec. X, 184.
- methods, Rec. V, 465; VI, 2, 12, 14.
- of albuminoids, Rec. III, 256, 259.
- albuminoids of brewers' grains, Rec. IV, 90.
- albuminoids of feeding stuffs, Rec. IV, 87.
- albuminoids of hay, Bul. 2, I, 156.

Digestion—Continued.

artificial—continued.

- bread, Rec. X, 772; XI, 661.
- cocoanut cake, Rec. IV, 87.
- dried diffusion residues, Rec. IV, 87.
- feeding stuffs, Bul. 2, II, 67.
- hay, Rec. IV, 87.
- peanut cake, Rec. IV, 87.
- protein in feeding stuffs, Rec. V, 1032; VI, 12.
- rice feed, Rec. IV, 87.
- v. natural, Bul. 2, I, 161; Bul. 2, II, 44; Rec. VI, 13.

as affected by—

- alcohol, Rec. VII, 971; X, 183.
- coal-tar colors, Rec. VIII, 809.
- formaldehyde, Rec. XI, 575.
- mustard and pepper, Rec. VII, 148.
- salt, Rec. IV, 974; V, 259, 531; VIII, 620.
- tea, coffee, and cocoa, Rec. VII, 971.
- chemistry, Rec. VIII, 924.
- coefficients, tables, Rec. I, 296; II, 50; IV, 595; VI, 5, 331, 445; VII, 336; VIII, 427; IX, 377; XI, 483; XII, 275.

experiments, methods, Rec. IX, 504.

experiments— (*See* *also* *different kinds of foods and feeding stuffs*.)

- elements of errorin, Rec. II, 269; XII, 275.
- maintenance rations for, Rec. VII, 178.
- nature, Rec. XII, 898.
- with man, Rec. IX, 679, 778, 780, 782, 1078; X, 79, 172, 184, 375, 381, 662, 663, 876; XI, 175, 376, 479, 659, 660, 661, 672, 959; XII, 274.

flask for soil analysis, Rec. VI, 689.

in larvae of gypsy moth, Rec. X, 566.

of albuminoids, Rec. V, 534, 654.

blood fibrin by pepsin as affected by anti-septics, Rec. X, 80.

casein as affected by phosphorus, Rec. V, 252.

fat in the stomach, Rec. VI, 1023.

millet by hens as affected by fine gravel, Rec. VIII, 718.

protein in feeding stuffs, Rec. VI, 12.

soils for analysis, Rec. VI, 793.

pancreatic—

- and peptic, Rec. XI, 576.
- as affected by mustard and pepper, Rec. VIII, 157.
- formation of gas in, Rec. X, 81.

peptic—

- as affected by acids, Rec. VI, 751.
- affected by baking powder containing alum, Rec. IV, 389.
- affected by boracic acid, Rec. IV, 870.
- investigations, Rec. VI, 917.
- of casein, Rec. V, 252, 822.
- physiology, Rec. IX, 1079; XII, 982.
- products of casein, Rec. VI, 1023.
- with pepsin, Rec. IX, 175.
- without digestive ferments, Rec. VI, 242.

Digestive—

- canal as affected by toxins and antitoxins, Rec. XI, 194.
- ferments, Rec. VIII, 719.

Digestive—Continued.

ferments—

- in newly-born animals, Rec. III, 655.
- studies, Rec. IX, 1079.

ferment of *Nepenthes*, Rec. VII, 926.

fluids—

- detection of lactic acid in, Rec. VII, 463.
- effect on bread, Rec. VII, 336.

liquids, sulphocyanates in, Rec. VII, 248.

process of carnivorous plants, Rec. V, 648.

proteolysis, study, Rec. VIII, 254.

secretions, protection of organism from, Rec. XII, 95.

tract, resorption of calcium salts in, Rec. V, 259.

Digger squirrel, notes, Rec. V, 161; VIII, 68.

Digger wasp, Rec. III, 811.

Digitalis—

for diagnosing pericarditis traumatica of cattle, Rec. XI, 289.

rose chafers, Rec. III, 171.

Digitaria sanguinalis—

culture experiments, Rec. VI, 807.

notes, Rec. X, 244.

Diglochis omnivora parasitic on brown-tail moth, Rec. X, 1059.

Dillenia speciosa, uses, Rec. XI, 549.

Diluvial formation in the Netherlands, Rec. XII, 837.

Dimerosporium magnoliae, n. sp., Rec. VI, 1000.

Dimethylene gluconic acid, Rec. VIII, 285.

Dimorphism—

among plants, seasonal, Rec. XII, 24.

in Australian cruciferous plants, Rec. X, 825.

of butterflies, Rec. VII, 699, 791.

Rhopalocera in Natal, Rec. VII, 517.

root tubercles of the pea, Rec. IV, 315, 517; VI, 557.

seasonal, Rec. VII, 278.

seasonal—

in Lepidoptera, Rec. X, 1076.

South African *Rhopalocera*, Rec. VIII, 712.

Dindymus versicolor, notes, Rec. VIII, 69; XI, 558.

Dinoderus substriatus, notes, Rec. XI, 954.

Diodia teres, root system, Rec. IV, 46.

Dioscorea— (See also YAM.)*alata*—

analyses, Rec. XII, 1076.

notes, Rec. VI, 220.

batatas, notes, Rec. VI, 142.

fargesii, notes, Rec. XII, 852.

guatemala, notes, Rec. VII, 405.

spp., notes, Rec. VIII, 128; XII, 345.

trifida, analyses, Rec. XII, 1076.

tuberosa, analyses, Rec. XII, 1076.

Dioscorea—

anatomy of stem, Rec. V, 344.

culture, Rec. VIII, 313.

hybridization, Rec. XII, 613.

Diospyros kaki—

mannane in seeds of, Rec. VI, 386.

notes, Rec. VI, 899.

Diphtheria—

avian and human, Rec. XII, 395.

Diphtheria—Continued.

bacilli—

effect on leucocytes, Rec. XII, 1084.

toxin production in milk, Rec. XII, 1080.

cultures, Rec. IX, 393.

in fowls—

investigations, Rec. VII, 524.

treatment, Rec. XI, 697.

in poultry, Rec. X, 496.

poultry, treatment, Rec. VII, 618.

new antitoxin, Rec. IX, 193.

reaction in a colored nutrient medium, Rec. XI, 794.

results of inoculating cows with bacillus of, Rec. V, 824.

Diphtheritic—

conjunctivitis of turkeys and chickens, Rec. V, 79.

membranes, pathology, Rec. XII, 393.

Diphysa racemosa, notes, Rec. III, 103.

Diplachne—

fascicularis, notes, Rec. II, 321; III, 548; VI, 403.

imbricata, notes, Rec. III, 548.

reverchonii, notes, Rec. III, 548.

rigida, notes, Rec. III, 548.

viscida, notes, Rec. III, 548.

Diplococcus tabaci, notes, Rec. XII, 720.

Diplodia—

inquinans, notes, Rec. VII, 838.

minuta, n. sp., Rec. VI, 1000.

sassafras, n. sp., Rec. VI, 1000.

Diplodus luridus, notes, Rec. IX, 675.

Diplogaster suspectus, notes, Rec. VIII, 996.

Diplopoda, morphology, Rec. IX, 467.

Diplosis—

cerealis, notes, Rec. X, 568.

cucumeris, notes, Rec. IX, 772.

equestris, notes, Rec. X, 568.

flava, notes, Rec. X, 568.

marginata, notes, Rec. X, 568.

mosellana, notes, Rec. X, 568.

pyrivora—

antennal structure, Rec. IX, 467.

notes, Rec. IV, 57; VI, 148, 835; VII, 143, 697, 791; VIII, 611, 909; IX, 67, 73; X, 66;

XI, 169, 272, 765; XII, 1061.

remedies, Rec. IV, 57.

rosivora, n. sp., notes, Rec. XII, 161.

setigera, notes, Rec. IX, 772.

sorghicola, notes, Rec. X, 1063.

sp., notes, Rec. V, 101.

tiliarum, notes, Rec. VII, 882.

tritici, notes, Rec. III, 197, 315; X, 164, 568; XI, 862, 952.

violicola, notes, Rec. XII, 161.

Diplotaxis harperi, notes, Rec. VI, 652; VII, 968.

Dipodomys ordii, notes, Rec. II, 258.

Dipping vat—

description, Rec. IX, 255.

for sheep, Rec. VII, 822; VIII, 720.

Dipsacus—

fullonum, notes, Rec. IX, 41.

sylvestris—

notes, Rec. II, 745; V, 398; VII, 689.

root system, Rec. IV, 46.

sylvestris torsus, biastrepis, Rec. XII, 109.

Diptera—

- claws and pulvilli, *Rec. XII*, 1068.
- gall-making, new species, *Rec. IX*, 1071.
- injurious, treatise, *Rec. XII*, 868.
- mining, *Rec. X*, 766.
- notes, *Rec. XI*, 370.
- of California, notes, *Rec. VII*, 146.
- Colorado and New Mexico, list, *Rec. VII*, 45.
- New Mexico, *Rec. IX*, 861, 1070; *X*, 67.
- Ohio, *Rec. V*, 311.
- Sicily, *Rec. IX*, 372.
- St. Vincent, West Indies, *Rec. VIII*, 712.
- Vera Cruz, *Rec. IX*, 964.
- post alar membrane, *Rec. IX*, 1071.

Dipterology, North American, bibliography, *Rec. VII*, 699.

Dipterous parasites, relation to economic entomology, *Rec. V*, 518.

Discolla pirina, notes, *Rec. V*, 1100.

Discomycetes—

- new species, *Rec. VIII*, 867.
- studies, *Rec. VII*, 748.

Discophora celinde, notes, *Rec. VII*, 881.

Discopleura sp., analyses, *Rec. VIII*, 520.

Diseases—

- caused by Rhizoctonia, *Rec. XI*, 57.
- contagious—
 - for animals injurious to agriculture, *Rec. VI*, 695.
 - incubation period as related to sale of animals, *Rec. XI*, 892.
 - of animals, laws concerning, *Rec. III*, 729; *V*, 608, 1041; *VI*, 164; *VII*, 253; *VIII*, 626; *IX*, 894; *X*, 999; *XII*, 597.
 - of animals, notes, *Rec. XI*, 893.
- infectious—
 - and bacteriolytic enzymes, *Rec. XI*, 194.
 - and creameries, *Rec. VI*, 479.
 - as related to unsanitary conditions, *Rec. XI*, 390.
 - bacteriology, *Rec. IX*, 95.
 - classification, *Rec. XII*, 489.
- natural and artificial immunity from, *Rec. V*, 540.
- of animals— (*See also specific diseases.*)
 - as result of insufficient water supply, *Rec. X*, 693.
 - atmospheric infection, *Rec. XII*, 790.
 - control, *Rec. XII*, 395.
 - in Africa, investigation, *Rec. X*, 795.
 - Europe, *Rec. X*, 998.
 - infectious prophylaxis, *Rec. XII*, 489.
 - manual, *Rec. XI*, 591.
 - pathology and therapy, *Rec. XII*, 596.
 - text-book, *Rec. XII*, 596.
 - transmissible to man, *Rec. X*, 896.
 - transmission by insects, *Rec. XI*, 995.
- of bulbs on the Pacific Coast, *Rec. XI*, 463.
- domestic animals, infectious, *Rec. X*, 297.
- farm animals, State compensation for loss, *Rec. XI*, 591.
- of live stock—
 - occurrence and distribution, *Rec. X*, 296.
 - reports of correspondents, *Rec. III*, 729.
- of man and of domestic animals spread by
 - dogs, *Rec. VI*, 846.
 - plants. (*See PLANT DISEASES.*)
 - poultry. (*See POULTRY DISEASES.*)

Diseases—Continued.

- role of insects in spreading, *Rec. XI*, 561, 693.
- treatment by light, *Rec. XI*, 1090.

Disinfectants—

- for fecal matter, *Rec. VI*, 969.
- influence on yeast, *Rec. V*, 650.
- in mushroom culture, *Rec. V*, 731.
- notes, *Rec. XI*, 998.
- use, *Rec. IX*, 592.

Disinfection—

- chemical, *Rec. IX*, 628.
- formaldehyde, *Rec. VI*, 389; *VIII*, 473.
- of stables, *Rec. VII*, 806.
- theory, *Rec. XII*, 1094.
- with steam, apparatus for, *Rec. VI*, 694.

Disippus butterfly, notes, *Rec. VI*, 740.

Disonychia—

- caroliniana*, notes, *Rec. X*, 1063.
- collaris*, notes, *Rec. II*, 81; *V*, 101.
- glabrata*, notes, *Rec. III*, 860.
- triangularis*, notes, *Rec. II*, 731; *III*, 784; *VIII*, 999; *XII*, 575.
- xanthomelæna*, notes, *Rec. XI*, 365.

Dissolved bone. (*See BONE, DISSOLVED.*)

Dissolved boneblack. (*See BONEBLACK, DISSOLVED.*)

Dissolved South Carolina rock. (*See SOUTH CAROLINA PHOSPHATE.*)

Dissosteira—

- carolina*—
 - notes, *Rec. XI*, 265.
 - on cranberry bogs, *Rec. IV*, 565.
- longipennis*, notes, *Rec. III*, 327, 907; *IV*, 760; *XI*, 265; *XII*, 160.
- obliterata*, notes, *Rec. IV*, 760.
- spurcata*, notes, *Rec. III*, 907.

Distemper—

- and rabies, differentiation, *Rec. XI*, 896.
- canine—
 - notes, *Rec. XII*, 1094.
 - remedies, *Rec. XI*, 190.
 - studies, *Rec. XII*, 292.
- in horses and mules, *Rec. VIII*, 625.

Distichlis—

- maritima*, notes, *Rec. II*, 321, 486; *III*, 598.
- spicata*—
 - anatomy of leaves, *Rec. IX*, 328.
 - notes, *Rec. VIII*, 306.
- spicata stricta*, notes, *Rec. VI*, 404.

Distillation—

- apparatus, *Rec. X*, 315.
- apparatus—
 - constant level for, *Rec. VI*, 869.
 - fractional, *Rec. XI*, 511.
 - new, *Rec. XI*, 112.
- tube for nitrogen determination, *Rec. VII*, 653.

Distillers' grains, analyses, *Rec. VII*, 377.

Distillery—

- corn feed, analyses, *Rec. VI*, 842.
- feed, dry, analyses, *Rec. VI*, 1023; *XI*, 314.
- grains—
 - analyses, *Rec. VII*, 377; *IX*, 682.
 - v. linseed cake for sheep, *Rec. IX*, 172.
- refuse—
 - digestibility, *Rec. X*, 474.
 - investigations, *Rec. IV*, 449.

Distillery—Continued.

residue—

feeding, Rec. V, 439.

notes, Rec. V, 801.

slop—

analyses, Bul. 2, II, 39; XII, 70.

dried, effect on secretion of milk, Rec. V, 1033.

value as a feeding stuff, Bul. 2, II, 39.

slump, analyses, Rec. VIII, 153.

vinasse as a fertilizer, Rec. XI, 1025.

waste, analyses, Rec. XII, 169, 378.

Distilling apparatus for Kjeldahl method, Rec. V, 127.

Distomatosis— (See also FLUKES.)

notes, Rec. XI, 997.

of abdominal walls of the cow, Rec. XI, 289.

Distomum—*cirratum*, notes, Rec. IX, 96.*flexuosum*, notes, Rec. IX, 96.*hepaticum*. (See LIVER FLUKE.)*hians*, notes, Rec. IX, 96.*lanceolatum*, notes, Rec. II, 79; XI, 997.*longicauda*, notes, Rec. IX, 96.*magnum*, notes, Rec. III, 725.*platyurum*, n. sp., Rec. IX, 95.*tenuicollis*, notes, Rec. IX, 96.*texanicum*, notes, Rec. III, 725.*tricolor*, notes, Rec. VI, 932.*westermanni*, notes, Rec. VI, 469.

Distribution of species, man's agency, Rec. IX, 729.

Ditartrate method for potash and soda, Rec. V, 126.

Ditches, hillside, construction, Rec. II, 288.

Ditching as related to flood and drought, Rec. II, 495.

Ditiola radicata, notes, Rec. VI, 195.*Ditopella fusispora*, notes, Rec. XI, 467.

Diurnal—

march of relative humidity, Rec. VII, 373.

oscillation and relative humidity, Rec. VII, 475.

Divi divi, culture, Rec. XI, 1037.

Divining rod, use, Rec. XII, 119.

Doassansia—*affinis*, notes, Rec. VII, 278.*alismatis*, notes, Rec. V, 418.*gossypii*, notes, Rec. III, 328.*Dochmius*—*cernus*, notes, Rec. II, 79.*duodenalis*, notes, Rec. IX, 1093

Dock—

bitter—

analyses, Rec. III, 629.

notes, Rec. III, 893.

curled. (See CURLED DOCK.)

eradication, Rec. IX, 142.

notes, Rec. V, 529.

red, notes, Rec. V, 497.

sour—

eradication, Rec. XI, 749.

notes, Rec. VI, 145.

species, notes, Rec. IV, 699.

yellow, notes, Rec. IV, 47, 334, 472.

Docks—

garden, Rec. V, 875.

notes, Rec. XI, 354.

Docophorus—*agelaii*, notes, Rec. IX, 254.*bubonis*, notes, Rec. IX, 254.*coccygi*, notes, Rec. IX, 254.*corvi*, notes, Rec. IX, 254.*fusco-ventralis*, notes, Rec. IX, 254.*halieta*, notes, Rec. IX, 254.*minuto-trabeculatus*, notes, Rec. IX, 254.*quiscali*, notes, Rec. IX, 254.*sialii*, notes, Rec. IX, 254.*speotyti*, notes, Rec. IX, 254.*Docophorus*, notes, Rec. XI, 263.

Dodder— (See also CUSCUTA.)

eradication, Rec. VI, 823; VIII, 234; IX, 142; X, 556.

geographical distribution in North America, Rec. XII, 720.

in alfalfa, Rec. X, 54; XII, 431.

alfalfa, eradication, Rec. IX, 143.

alfalfa seed, Rec. XI, 750.

clover, Rec. IX, 361; X, 54, 259.

clover seed, Rec. V, 334, 925; VI, 428; XI, 462, 750.

cucumbers, notes, Rec. XII, 56.

life history, Rec. XII, 313.

notes, Rec. I, 24; II, 419; III, 217, 803; IV, 47; V, 529, 680; VI, 554; X, 760.

on garden vegetables, Rec. VIII, 234.

seed, germination, Rec. XII, 960.

Dog fennel, notes, Rec. III, 893; VI, 822.

Dog flea. (See CAT AND DOG FLEA.)

Dogbane—

notes, Rec. V, 298.

root system, Rec. IV, 45.

Dogtown grass. (See NEEDLE GRASS.)

Dogs—

as affected by muscular work, Rec. IX, 680.

digestion experiments, Rec. X, 183, 877; XI, 380, 778.

distemper—

biology, Rec. XI, 896.

notes, Rec. XII, 1094.

remedies, Rec. XI, 190.

studies, Rec. XII, 292.

effect of removal of large intestine of, Rec. XI, 276.

epizootic catarrhal fever, Rec. XI, 191.

feeding experiments, Rec. V, 532.

growth as affected by composition of milk, Rec. XI, 576.

mange, treatment with "epicarin," Rec. XI, 870; XII, 793.

metabolism, as affected by feeding fractionally, Rec. IV, 987; VI, 77.

metabolism experiments, Rec. VIII, 70, 71, 149, 150; IX, 680, 681, 982; XI, 276, 381, 483, 672, 778, 883, 962, 973.

new disease, Rec. XII, 685.

nitrogen—

equilibrium in, Rec. XII, 172.

excretion by, Rec. IX, 474.

respiration experiments, Rec. X, 70.

susceptibility to hemorrhagic septicemia of poultry, Rec. XII, 991.

tubercle bacilli, agglutination, in experiments with, Rec. XII, 993.

tuberculosis, Rec. VIII, 928; XI, 794; XII, 1093.

- Dogstail, crested, notes, Rec. V, 910.
 Dogwood—
 ash analyses, Rec. I, 26.
 notes, Rec. III, 522.
 plant-louse, notes, Rec. II, 80.
 red osier, notes, Rec. III, 522.
 red-twigged, notes, Rec. IV, 655.
 rough-leaved, notes, Rec. III, 521.
 sawfly, notes, Rec. IV, 838.
- Dolerus*—
 arvensis, notes, Rec. III, 546; XI, 63.
 collaris, notes, Rec. III, 546; XI, 63.
 palustris, notes, Rec. VII, 699.
 spp., notes, Rec. III, 546.
- Dolichonyx oryzivorus*, notes, Rec. IV, 848.
- Dolichos*—
 biflorus—
 analysis, Rec. X, 678.
 notes, Rec. V, 820, 909; VII, 954.
 lablab, analysis, Rec. X, 678.
 multiflorus—
 analyses, Rec. IX, 275.
 culture experiments, Rec. X, 96.
 notes, Rec. IX, 41.
 sesquipedalis, notes, Rec. VI, 218.
 sinensis. (See COWPEAS.)
- Dolomitic marl, Rec. VIII, 880.
- Dolopius lateralis*, notes, Rec. III, 450.
- Domestic science—
 handbook, Rec. XII, 279.
 in agricultural colleges, Rec. XII, 279.
 lessons, Rec. X, 1089.
- Donacia subtilis*, notes, Rec. I, 292.
- "Dongkellan" disease of sugar cane, Rec. X, 266, 1057.
- Door weed, notes, Rec. V, 497.
- Doratifera vulnerans*, notes, Rec. IX, 260.
- Dorcadion lineatum*, affecting cereals, Rec. XI, 1057.
- Dorcaschema*—
 alternatum, notes, Rec. XI, 272.
 wildii, notes, Rec. XI, 272.
- Dorcelaphus texanus*, notes, Rec. IX, 1030.
- Dorcus parallelus*, notes, Rec. II, 419.
- Dorset horn sheep, history, Rec. V, 74.
- Dorsiventral organs as affected by light, Rec. VIII, 867.
- Doryctes* spp., notes, Rec. IV, 852.
- Dorylaimus*—
 condannus, notes, Rec. XI, 259, 712.
 incertus, notes, Rec. XI, 712.
 makrodorus, notes, Rec. XI, 712.
 sp., notes, Rec. X, 562.
- Dorylinæ, notes, Rec. XII, 1069.
- Doryphora*—
 decemlineata. (See POTATO BEETLE, COLORADO.)
 sassafras, notes, Rec. VII, 776.
 platyrhynchus, notes, Rec. IX, 153.
- Dorydini* (*Jassinæ*), new species, Rec. IX, 372.
- Dothidea ponrigena*, notes, Rec. X, 262.
- Doticus pestilens*, notes, Rec. XI, 558.
- Double manure salt, analyses, Rec. VIII, 767; X, 716.
- Double petunias, notes, Rec. VI, 549.
- Double phosphate of potash and magnesia, analyses, Rec. X, 1031.
- Double potash and magnesia carbonate, analyses, Rec. IX, 1024.
- Double sulphate of potash and magnesia, analyses, Rec. X, 230.
- Double superphosphate, analyses, Rec. VIII, 563; X, 919.
- Double white yarrow, notes, Rec. IV, 653.
- Doudna, P. E., notes, Rec. XII, 521.
- Dough, fermentation, Rec. VI, 468.
- Dourine—
 of horses, pathology, Rec. XII, 1094.
 pathogenic organism, Rec. XII, 893.
- "Doyen's Potato Bug Preventive"—
 analyses, Bul. 2, II, 59.
 as an insecticide, Bul. 2, II, 59.
- Dracenas, blight, notes, Rec. VI, 827.
- Draft—
 animals, traction tests, Rec. VIII, 90.
 hitch, elastic, and dynamometer, Rec. V, 1102.
 of broad and narrow tired wagons, Rec. XI, 1094.
 wagons as affected by width of tire, Rec. X, 98.
- Dragon flies—
 as enemies of the locust, Bul. 2, II, 93.
 collecting and rearing, Rec. XII, 870.
 notes, Rec. IV, 58; V, 499; VI, 653; VII, 596.
 literature in nineteenth century, Rec. XII, 972.
- Drainage—
 and irrigation manual, Rec. XI, 826.
 rainfall at Rothamsted, Rec. V, 345.
 as affected by forests, Rec. XII, 426.
 farm, Rec. VIII, 351; X, 195, 1097.
 farm, notes, Rec. VI, 942.
 influence of plant cover on, Rec. VI, 198.
 in practice and theory, Rec. VIII, 351.
 Rhine Hesse, Rec. VI, 485.
 Upper Chagres River, Rec. XII, 521.
 loss of nitrogen from soils by, Rec. V, 9.
 of soils, Rec. IV, 120; X, 731.
 principles and practice, Rec. V, 215.
 studies, Rec. V, 656, 827.
- tile—
 as related to flood and drought, Rec. II, 495.
 cost, Rec. II, 572.
 effect on crops, Rec. III, 27.
 experiments, Bul. 2, I, 72; Rec. III, 246; IV, 369, 457; V, 215; VI, 847; VII, 431, 810; VIII, 482.
 for corn, Rec. III, 590; VIII, 214.
 observations, Rec. IV, 697; V, 796.
- vertical, Rec. V, 796.
- water—
 analyses, Bul. 2, II, 107; Rec. IV, 684; IX, 231; X, 1021; XI, 525.
 composition, Rec. IX, 231.
 from moor soils, composition, Rec. X, 931.
 nitrogen content, Rec. XII, 917.
- waters—
 fertilizing materials in, Rec. III, 831.
 lecture on, Rec. III, 139.
 loss of nitric nitrogen in, Rec. VI, 977, 978; VII, 99; IX, 631.
 loss of nitrates and nitric nitrogen in, Rec. IX, 631.

Drainage—Continued.

waters—continued.

- of bare soils, Rec. III, 492; IV, 295.
- cultivated soils, Rec. III, 492; IV, 614, 682; V, 730, 804; VI, 977; VII, 99.
- different soils, Rec. VIII, 676.
- manured soils, Rec. III, 492.
- study, Rec. III, 901.

Drained, tile, *v.* undrained land for corn, Bul. 2, I, 107.

Draining—

- and irrigating land, Rec. X, 397.
- for profit, Rec. VI, 530.
- lands, notes, Rec. III, 107.
- notes, Rec. IX, 1097.
- soils, experiments, Rec. III, 514.
- woodlands, Rec. VIII, 315.

Drains—

- brush and stone, construction, Rec. VI, 848.
- depth and capacity, Rec. VI, 346.
- tile—
 - for irrigation, Rec. VII, 72; VIII, 734.
 - subirrigation, Rec. VI, 848.
 - tree roots in, Rec. VII, 630.

Drasteria—

- crassiuscula*, notes, Rec. IV, 666.
- erechtea*, notes, Rec. III, 784; IV, 666; VI, 649.

Drasterius—

- dorsalis*, notes, Rec. III, 450.
- elegans*, notes, Rec. II, 80; III, 451; VIII, 144.

Dreissensia polymorpha, circulatory system, Rec. V, 1100.

Drepanidotænia hemignathi, notes, Rec. IX, 1091.

Drepanosiphum acerifolii, notes, Rec. X, 1066.

Dresden, Germany, Experiment Station for Plant Culture at, Rec. III, 208.

Dried blood. (*See* BLOOD, DRIED.)

Drills, steam, Rec. IX, 797.

Drinking contrivances, self-acting, Rec. VIII, 351; XII, 1096.

Dropseed—

- analyses, Bul. 2, I, 108.
- grass, notes, Rec. X, 343.

Drosera—

- binata*, notes, Rec. XI, 937.
- filiformis* and *D. intermedia*, hybrids between, Rec. XI, 817; XII, 613.
- rotundifolia*, physiology, Rec. VII, 656.

Drosophila—

- amæna*, notes, Rec. IX, 65.
- ampelophila*, notes, Rec. IX, 65; XII, 365.
- flaveola*, notes, Rec. VIII, 418.
- funçbris*, notes, Rec. IX, 65.
- graminum*, notes, Rec. IX, 65.
- sp., notes, Rec. III, 792.
- transversa*, notes, Rec. IX, 65.

Drought—

- and agriculture, Rec. VIII, 111.
- weather in distant regions, Rec. VIII, 111.
- control of, Rec. VII, 570.
- determination of intensity, Rec. XII, 317.
- effect on—
 - crops, Rec. IV, 871; X, 449.
 - firs, Rec. VIII, 604.
 - injurious insects, Rec. V, 348.
 - milk, Rec. XI, 676.
 - milk production, Rec. VIII, 825; X, 295.

Drought—Continued.

effect on—continued.

- plants, Rec. VII, 564; IX, 921; X, 449.
- trees, Rec. XII, 955.
- wireworms and mole crickets, Rec. V, 348.
- endurance in soils, Rec. XII, 921.
- in culture of small fruits, Rec. VII, 505.
- Missouri in 1899, Rec. XII, 520.
- of 1845 in northern Ohio, Rec. VII, 845.
- of 1893—
 - and forest fires, Rec. V, 731.
 - its causes, Rec. VI, 512.
 - studies, Rec. VII, 570.
- rations for cattle in time of, Rec. V, 439.
- resistance of field crops to, Rec. V, 345, 621.

Droughts—

- and famines in India, Rec. VI, 973.
- in India, Rec. XII, 521.
- India, predictions, Rec. V, 1086.
- the Mississippi Valley, Rec. VII, 845.
- the United States, Rec. X, 326.

Drug—

- adulteration, Rec. VI, 573.
- adulteration in Massachusetts, Rec. XII, 79.
- and pharmacy laws, Rec. VI, 573.

Drug store beetle, notes, Rec. IX, 65.

Drugs, insects affecting, Rec. VI, 563, 1002.

Drapes, influence of seeds on formation of flesh, Rec. IV, 783.

Dry northers—

- in Nevada, Rec. VII, 474.
- of California, Rec. VII, 474.

Dry spells, Rec. XII, 119.

Drying—

- apparatus, Rec. VII, 92, 110, 185; VIII, 862; IX, 919; XII, 908.
- fermentable substances, Rec. V, 28.
- grains, Rec. VIII, 492.
- oven. (*See* OVEN.)

Drymaria diffusa, n. sp., notes, Rec. IV, 374.

Dryobates pubescens, notes, Rec. XII, 161.

Dryobius sexfasciata, notes, Rec. X, 168.

Duck—

- Barberry, Rec. V, 439.
- fattening industry at Alesburg, Rec. VII, 425.

Duck grass, analyses, Rec. VIII, 877.

Duck hawk, notes, Rec. VI, 694.

Ducks—

- and chickens, relative gains, Rec. X, 581.
- geese, breeding and management, Rec. IX, 874.
- bacteriological disease, Rec. XII, 390.
- breeding and rearing, Rec. XI, 80.
- breeds, Rec. XI, 972.
- check list of animal parasites, Rec. VIII, 626.
- feeding, Rec. XI, 999.
- feeding experiments, Rec. X, 1087; XI, 671; XII, 377, 589.
- hemorrhagic septicemia, Rec. XII, 294, 888.
- Rouen, Rec. VIII, 822.
- toxicology of strychnin, Rec. XII, 392.

Dulcin, a new saccharin compound, Rec. V, 261.

Dulse—

- analyses, Rec. IV, 715.
- notes, Rec. IV, 715.

Dundee corn and oat feed, analyses, Rec. XI, 279.

Dunes, culture, Rec. XII, 427.

Dung— (*See also* MANURE.)

action of pepsin solution on, **Rec. II**, 267.
metabolic products, **Rec. II**, 267.

Dupontia—

fisheri, notes, **Rec. IV**, 951.

psilosantha flavescens, notes, **Rec. IV**, 951.

Durian, culture in Dominica, **Rec. VI**, 637.

Durio zibethinus, notes, **Rec. VI**, 637.

Durra—

analyses, **Rec. II**, 744; **V**, 64.

as a forage plant, **Rec. IV**, 693; **XII**, 331.

ash constituents, **Rec. III**, 890.

brown, culture experiments, **Rec. VII**, 209;
VIII, 308.

culture experiments, **Bul. 2, I**, 190; **Rec. I**,
254; **II**, 643; **III**, 16; **IV**, 645.

microscopical and chemical examination,
Rec. V, 437.

notes, **Rec. II**, 337.

rural branching, analyses, **Rec. XII**, 378.

varieties, **Rec. IV**, 411.

white, culture experiments, **Rec. V**, 39; **VI**,
542.

yield per acre, **Rec. III**, 16.

Dust—

atmospheric, **Rec. VIII**, 755; **XI**, 222.

from sheep fleeces, analyses, **Rec. X**, 235.

soda works, effect on vegetation, **Rec.**
III, 922.

whirls and fairy dances, **Rec. XI**, 222.

Dustings, analyses, **Rec. VII**, 111.

Dutch Belted cattle, notes, **Rec. XI**, 983.

Dutchman's pipe, notes, **Rec. IV**, 656.

Duthica bromoides, notes, **Rec. VII**, 209.

Duty of water. (*See* IRRIGATION.)

Dwarf beans, notes, **Rec. V**, 616.

Dwarf broom weed, notes, **Rec. X**, 343.

Dwarf Essex rape, analyses, **Rec. XII**, 378.

Dwarf Juneberry culture experiments, **Rec.**
IX, 50.

Dwarf mountain pine, notes, **Rec. II**, 143.

Dwarf Rocky Mountain cherry, culture experi-
ments, **Rec. IX**, 50.

Dwarf rust of grain, **Rec. X**, 316.

Dwarf sumac, notes, **Rec. III**, 526.

Dwarf wild cherry, notes, **Rec. III**, 521.

Dyer's madder, notes, **Rec. V**, 577.

Dynamometer—

bearing, testing, description, **Rec. XII**, 797.

experiments—

and elastic draft hitch, **Rec. V**, 1102.
with vehicles, **Rec. V**, 735.

tests of—

farm implements, **Rec. III**, 100, 179, 436.

plows, **Rec. II**, 376; **V**, 130.

sleds, **Rec. II**, 622.

wagons, **Rec. II**, 515; **X**, 195.

Dynastes tityus, notes, **Bul. 2, I**, 179.

Dysentery—

causes, **Rec. IX**, 294.

in calves, **Rec. XI**, 995.

young animals, **Rec. XII**, 898.

malignant, of calves, control, **Rec. XII**, 684.

Dytiscus verticalis, notes, **Rec. IV**, 354.

Eacles imperialis, notes, **Rec. IX**, 370.

Eagle fern, notes, **Rec. III**, 598.

Eagle—

bald, notes, **Rec. VI**, 694.

golden, notes, **Rec. VI**, 694.

Ear, human, insects in, **Rec. V**, 541.

Earcockle—

in wheat, **Rec. X**, 457.

treatment, **Rec. XI**, 759, 948.

Earias insulana, notes, **Rec. XI**, 563.

Earth—

air currents, resistance, **Rec. VII**, 475.

and atmosphere, radiation of heat, **Rec. XI**,
132.

burnt, in seed germination, **Rec. IV**, 876.

nut. (*See* PEANUT.)

roads, construction and repair, **Rec. VI**, 170.

Earthen dams, construction, **Rec. VIII**, 934.

Earthquake of October 31, 1895, **Rec. VIII**, 110.

Earthquake-proof buildings, **Rec. IX**, 531.

Earthquakes—

how to observe, **Rec. VII**, 845.

in Central and South America, **Rec. X**, 419.

New Brunswick, **Rec. X**, 326.

recent, **Rec. VII**, 845; **IX**, 424, 531, 814, 815;
X, 325, 326, 1018; **XI**, 221, 429.

Earths, cave, analyses, **Bul. 2, I**, 22.

Earthworm as host of gapeworm, **Rec. XI**, 191.

Earthworms—

and rhizome plants, interrelations, **Rec. VII**,
94.

tuberculosis, **Rec. III**, 579; **IV**, 311.

as a source of gapes in poultry, **Rec. X**, 393;
XI, 392.

effect on development of plants, **Rec. VIII**,
108.

in soil of forests, **Rec. XII**, 424.

notes, **Rec. VII**, 695.

rôle in soil, **Rec. XII**, 927.

species, **Rec. IX**, 530.

studies, **Rec. XI**, 429.

systematic account, **Rec. XII**, 617.

Earwig, common, **Rec. VII**, 792; **VIII**, 909.

East Friesian cows, composition of milk, **Rec. II**,
464.

Easter lilies. (*See* LILIUM HARRISH.)

Eating and drinking, **Rec. VIII**, 1014.

Eaton grass, analyses, **Rec. VI**, 403.

Eatonia—

n. spp., descriptions, **Rec. XII**, 911.

obtusata, notes, **Rec. II**, 321; **VI**, 403; **VIII**, 780.

pennsylvanica—

analyses, **Rec. III**, 629.

notes, **Rec. VI**, 403.

Eau celeste—

as a fungicide, **Bul. 2, II**, 87; **Rec. II**, 406; **V**,
62.

for almond diseases, **Rec. IV**, 955.

apple scab, **Rec. II**, 633; **III**, 620; **IV**, 561,
926.

grape anthracnose, **Rec. IV**, 551.

grape black rot, **Bul. 2, II**, 135; **Rec. II**,
633.

grape downy mildew, **Bul. 2, I**, 26.

grape mildew, **Bul. 2, II**, 135.

grape ripe rot, **Rec. IV**, 551.

pear leaf blight, **Rec. IV**, 168.

potato blight, notes, **Rec. II**, 633.

potato rot, **Rec. V**, 307.

potato scab, **Rec. IV**, 560; **VIII**, 799.

quince leaf spot, **Rec. IV**, 929.

stinking smut of wheat, **Rec. III**, 226, 286.

- Eau celeste—Continued.
 for tomato blight, **Rec. V**, 790.
 wheat smut, **Rec. II**, 221.
 modified—
 for apple scab, **Rec. V**, 1077.
 pear blight, **Rec. III**, 144.
 preparation and use, **Rec. II**, 49, 609; **IV**, 659;
 V, 206, 592.
 with arsenites, **Rec. III**, 175.
- Ebullioscope—
 modified form, **Rec. VIII**, 668.
 use, **Rec. VIII**, 861.
- Eburia quadrigemina*, notes, **Rec. I**, 41.
- Echinocactus—
 anatomy, **Rec. VIII**, 670.
 revision of species, **Rec. VIII**, 107.
- Echinocactus*—
peninsulæ, notes, **Rec. VII**, 564.
simpsoni, notes, **Rec. III**, 52.
- Echinococcus in a camel, **Rec. VI**, 470.
- Echinococcus*—
multilocularis, in sheep, **Rec. X**, 95.
vetrinorum, notes, **Rec. IX**, 274; **XI**, 290.
- Echinocystis lobata*—
 herbaceous grafting, **Rec. II**, 508.
 notes, **Rec. VI**, 819.
- Echinopepon cirrhopedunculatus*, notes, **Rec. III**,
 103.
- Echinops sphærocephalus*, notes, **Rec. II**, 279, 496.
- Echinorhynchus gigas*, notes, **Rec. III**, 501; **IX**, 274.
- Echinosperrum*—
deflexum, notes, **Rec. V**, 911.
lappula—
 notes, **Rec. V**, 398.
 root system, **Rec. IV**, 46.
- Echium vulgare*—
 analyses, **Rec. III**, 629.
 notes, **Rec. II**, 482, 745; **III**, 893; **IV**, 591; **V**,
 398, 529; **VI**, 732; **IX**, 846; **X**, 343.
 root system, **Rec. IV**, 46.
- Echocerus*—
cornatus, notes, **Rec. IX**, 65.
dentiger, notes, **Rec. VIII**, 1002.
maxillosus, notes, **Rec. VII**, 515; **VIII**, 610.
recurvatus, notes, **Rec. VIII**, 1002.
- Ecton sumichrasti*, notes, **Rec. XII**, 580.
- Eclampsia, in domestic animals, **Rec. XI**, 696.
- Eclipse—
 of sun May 28, 1900, **Rec. IX**, 531, 817; **XII**, 119.
 shadow bands and atmospheric phenomena,
 Rec. XII, 521.
- Ecology—
 of Kansas grasses, **Rec. XI**, 420.
 Ocracoke Island, **Rec. XII**, 720.
 sand dunes of Lake Michigan, **Rec. XI**, 321.
- Economic—
 entomology, **Rec. IX**, 660, 967.
 entomology, American, bibliography, **Rec.**
 VII, 147; **X**, 470.
 feed analyses, **Rec. VII**, 702.
 history of Virginia in the seventeenth cen-
 tury, **Rec. VII**, 955.
 insects, **Rec. VIII**, 175.
 plants. (*See* PLANTS, ECONOMIC.)
 value of toads, **Rec. IX**, 330.
- Ecpanteria scribonia*, notes, **Rec. II**, 482; **IX**, 370.
- Ectobia germanica*, notes, **Rec. VI**, 1002; **IX**, 64.
- Eczema, notes, **Rec. XI**, 794.
- Edam cheese, **Rec. IV**, 988.
- Edam cheese—
 manufacture, **Rec. V**, 211, 1060; **VI**, 939, 1026.
 nature of ripening process, **Rec. XI**, 488.
- Edema albifrons*, notes, **Rec. II**, 64; **III**, 291; **IV**,
 204; **V**, 101; **XI**, 169.
- Edema—
 and charbon, relations, **Rec. VI**, 164.
 in roots of *Salix nigra*, **Rec. IX**, 457.
 malignant—
 and blackleg, bacilli, study, **Rec. XII**, 691.
 symptomatic charbon, relations, **Rec.**
 VI, 165.
 differential diagnosis, **Rec. XI**, 985.
 in cattle, **Rec. XI**, 796.
 cows, **Rec. VII**, 805, 987.
 horses, **Rec. XII**, 792, 1094.
 of tomato, investigations, **Rec. VI**, 647.
- Edestin—
 in metabolism of dogs, **Rec. XI**, 778.
 investigations, **Rec. XI**, 310.
- Edible—
 and poisonous mushrooms, reference list of
 publications, **Rec. IX**, 840.
 wild plants, **Rec. IX**, 139.
- Education. (*See* AGRICULTURAL EDUCATION.)
- Eelgrass—
 analyses, **Rec. IV**, 436, 715.
 notes, **Rec. IV**, 715.
- Eels, bacterial disease, **Rec. V**, 733.
- Eelworms— (*See also* NEMATODES.)
 affecting roses, **Rec. XII**, 424.
 in grape roots, remedies, **Rec. X**, 765.
 onions, **Rec. VIII**, 63.
 notes, **Rec. X**, 168.
 remedies, **Rec. VIII**, 608, 801, 908.
- Egg— (*See also* EGGS.)
 albumen—
 analyses, **Rec. IX**, 873.
 artificial digestion, **Rec. V**, 536.
 as affected by ortho-phosphoric acid, **Rec.**
 X, 412.
 bacteriological and chemical studies,
 Rec. V, 129, 223.
 crystallized, analysis, **Rec. III**, 578.
 decomposition by vibriones, **Rec. VI**, 273.
 fractional crystallization, **Rec. V**, 922.
 iodated, **Rec. IX**, 808.
 mucoid substance in, **Rec. V**, 727.
 preparation and nature, **Rec. III**, 748.
 studies, **Rec. XI**, 309, 705.
 sugar from, **Rec. XI**, 23.
 and feather eating, **Rec. VI**, 466.
 hatching experiments, **Rec. VII**, 889.
 oil of, **Rec. VIII**, 285.
 parasite, new, **Rec. X**, 170.
 production, **Rec. III**, 36; **IV**, 441; **IX**, 873; **XI**,
 969; **XII**, 586.
 production—
 animal meal *v.* cut bone for, **Rec. IX**, 377;
 X, 676.
 as affected by age, breed, and exercise.
 Rec. X, 77.
 affected by age of fowls, **Rec. XI**, 776
 affected by condition powder, **Rec. IX**,
 376; **X**, 675.
 affected by exercise, **Rec. X**, 77; **XI**,
 481; **XII**, 674.

Egg—Continued.

production—continued.

as affected by various factors, **Rec. XI**, 481, 572, 881.

by different breeds, **Rec. II**, 6; **IV**, 441; **V**, 202, 439; **VI**, 574, 582; **VII**, 432; **X**, 77; **XI**, 481.

clover rowen *v.* cabbage for, **Rec. X**, 676.

comparison of breeds of hens, **Rec. X**, 582.

experiments, **Rec. V**, 202; **XI**, 671.

nitrogenous *v.* carbonaceous rations for, **Rec. II**, 506; **XI**, 774.

pullets *v.* hens for, **Rec. XI**, 480; **XII**, 674. records, **Rec. XII**, 586.

records—

individual, method of obtaining, **Rec. XI**,

969.

nest box for, **Rec. XI**, 969; **XII**, 298.

shells, analyses, **Rec. VIII**, 157.

trade in Denmark, **Rec. X**, 83.

white proteids, studies, **Rec. XII**, 514.

yolk—

for bacterial cultures, **Rec. VIII**, 473.

iron content, **Rec. XII**, 780.

phosphorus compounds, **Rec. XI**, 882.

preserved, analyses, **Rec. IX**, 873.

proteids, studies, **Rec. XII**, 513.

Eggplant—

anthracnose, notes, **Rec. III**, 307; **IV**, 51.

ashy mold, notes, **Rec. III**, 307.

bacterial disease, **Rec. VIII**, 895.

blight, notes, **Rec. VI**, 646.

disease, treatment, **Rec. IX**, 655.

flea-beetle, notes, **Rec. XI**, 365.

fruit rot, **Rec. VIII**, 894.

leaf spot—

notes, **Rec. III**, 307; **IV**, 51; **VI**, 646; **X**, 446.

treatment, **Rec. VIII**, 894.

macrosporium disease, notes, **Rec. XII**, 61.

stem blight, notes, **Rec. IV**, 51.

stem rot, notes, **Rec. IV**, 51.

Eggplants—

analyses, **Rec. IV**, 59; **X**, 853.

botanical characters, **Rec. II**, 739.

crossing, **Rec. II**, 738; **IV**, 825, 922.

culture, **Rec. II**, 737; **IV**, 922; **IX**, 357.

culture experiments, **Rec. VIII**, 313, 407.

damping off, **Rec. V**, 400.

decay, **Rec. V**, 401.

extent of disease on, **Rec. XI**, 752.

fertilizer experiments, **Rec. X**, 548.

fertilizer formula, **Rec. XII**, 851.

forcing, **Rec. VII**, 401.

growing under glass in summer, **Rec. XII**, 1039.

herbaceous grafting, **Rec. II**, 508.

insects affecting, **Rec. VIII**, 147.

mulching, **Rec. VIII**, 886, 895.

nematode on, **Rec. V**, 1011; **X**, 446.

notes, **Rec. X**, 254, 547, 853; **XI**, 850, 1047; **XII**, 340.

parasitic fungus, **Rec. X**, 456.

preparation for the table, **Rec. XII**, 340.

spraying experiments, **Rec. XII**, 352.

Eggplants—Continued.

varieties, **Bul. 2**, 1, 33; **Rec. I**, 123; **II**, 738, **III**, 85, 386; **IV**, 922; **V**, 189, 785, 790, 870, 873, 1074; **VI**, 142, 726; **VII**, 124, 125, 213, 405; **VIII**, 888, 977; **XI**, 51.

yields on old and new lands, **Rec. XI**, 753.

Eggs— (*See also* Egg.)

analyses, **Rec. II**, 588; **IV**, 59; **X**, 275.

and poultry, **Rec. X**, 584.

poultry, production in the United States, **Rec. V**, 608, 1005.

as food, **Rec. IX**, 87.

bacteria in, **Rec. IV**, 976.

behavior of cholera bacilli in, **Rec. V**, 1098.

changes in, due to bacteria, **Rec. IX**, 87.

cold storage, **Rec. XI**, 482; **XII**, 780.

composition as affected by food, **Rec. X**, 582.

cooling, effect on number hatching, **Rec. VII**, 155.

development as affected by movement, **Rec. IV**, 615.

digestibility, **Rec. IX**, 679.

effect of—

bacteria on, **Rec. XI**, 87.

food on flavor, **Rec. XI**, 1073; **XII**, 898.

freezing on the embryo, **Rec. XI**, 577.

fertility, **Rec. VI**, 467; **X**, 78; **XI**, 671.

food value, **Rec. X**, 999.

food value of white-shelled and brown-shelled, **Rec. X**, 274.

incubation as affected by ammonia, **Rec. XI**, 1093.

keeping, **Rec. III**, 359; **X**, 280.

loss in weight during incubation, **Rec. VII**, 613.

of insects, **Rec. VII**, 517.

penetration by typhoid bacilli, **Rec. VII**, 524.

preservation, **Rec. III**, 400, 617; **IV**, 441, 976;

IX, 87, 274, 873, 981; **X**, 583; **XI**, 279, 599, 670, 882; **XII**, 376, 476, 589, 780, 1098.

preservation—

with peat dust, **Rec. IX**, 981.

water glass, **Rec. XII**, 780.

produced on different foods, **Rec. V**, 203.

salt content, **Rec. IX**, 581.

selling by weight, **Rec. XI**, 1073; **XII**, 898.

setting, **Rec. II**, 6.

silkworm, development, **Rec. VIII**, 69, 147.

weights, **Rec. II**, 6; **III**, 36; **IV**, 441.

world's trade in, **Rec. VIII**, 267.

Eglanderina moth, notes, **Rec. II**, 116.

Egypt, National Society of Agriculture, **Rec. X**, 303.

Egyptian—

agricultural institutions, **Rec. XI**, 1099.

clay and salt, **Rec. X**, 834.

corn— (*See* CORN, EGYPTIAN.)

cotton— (*See* COTTON, EGYPTIAN.)

icerya in Australia, **Rec. V**, 901.

rice corn—

culture experiments, **Rec. II**, 643; **III**, 16; **IV**, 645; **V**, 176.

yield per acre, **Rec. III**, 16.

School of Agriculture, **Rec. X**, 202.

wheat, culture experiments, **Rec. IV**, 645.

Eight-lined gypona, **Rec. IX**, 153.

- Eight-spotted forester—
 notes, **Rec. III**, 309; **VI**, 312, 315, 316.
 remedies, **Rec. I**, 11.
- Elachista*—
coffeella, affecting coffee, **Rec. XI**, 1065.
præmaturella, early accounts of, **Rec. IV**, 83.
- Elachistus websteri*, notes, **Rec. V**, 311.
- Elacagnus*—
angustifolia—
 notes, **Rec. III**, 788.
 root tubercles, **Rec. IV**, 376.
longipes, notes, **Rec. VIII**, 312, 314.
- Elæis guineensis*, notes, **Rec. IX**, 949.
- Elaphidion*—
cinereum, notes, **Rec. X**, 1062.
imbelle, notes, **Rec. X**, 1062.
inermis, notes, **Rec. X**, 1062.
irroratum, notes, **Rec. X**, 1062.
mucronatum, notes, **Rec. X**, 1062.
parallelum, notes, **Rec. IV**, 354; **IX**, 662.
subpubescens, notes, **Rec. X**, 1062.
tectum, notes, **Rec. X**, 1062.
unicolor, notes, **Rec. X**, 1062.
villosum, notes, **Rec. IX**, 371, 662; **X**, 569, 1062,
 1066, 1067; **XII**, 272.
- Elasmopalpus lignosellus*, notes, **Rec. XII**, 362.
- Elasmus, habits, **Rec. III**, 811.
- Elasticity and the energy produced in muscles
 during voluntary contraction, **Rec. IX**, 1080.
- Elastin, value in metabolism experiments, **Rec.**
XI, 672.
- Elater* sp., notes, **Rec. III**, 175.
- Elateridæ* sp., notes, **Rec. I**, 45.
- Elaters, hepatic, morphology, **Rec. V**, 936.
- Eldena, Germany, Experiment Station report,
Rec. III, 258.
- Elder—
 analyses, **Rec. III**, 629.
 common, notes, **Rec. IV**, 656.
 cut-leafed, notes, **Rec. IV**, 656.
 golden, notes, **Rec. VIII**, 314.
 marsh, notes, **Rec. IV**, 699.
 notes, **Rec. III**, 522, 893.
 red-berried, notes, **Rec. IV**, 656.
 rust, notes, **Rec. III**, 161.
- Elechipterox cornuta*, notes, **Rec. VI**, 316.
- Electric—
 arc light for growing greenhouse plants, **Rec.**
III, 232.
 attraction of trees, **Rec. IX**, 453.
 conductivity of culture media as affected by
 bacteria, **Rec. XI**, 715.
 currents, effect on instruments for measuring
 terrestrial magnetism, **Rec. XII**, 920.
- light—
 continuous and discontinuous, effect on
 structure of trees, **Rec. IV**, 315.
 effect on beets, **Rec. IV**, 351; **IX**, 551.
 effect on cauliflowers, **Rec. IV**, 351; **V**, 294;
VI, 809.
 effect on daisies, **Rec. IV**, 351.
 effect on Easter lilies, **Rec. VIII**, 984.
 effect on endives, **Rec. IV**, 351.
 effect on leaf tissues, **Rec. XI**, 708.
 effect on lettuce, **Rec. IV**, 350; **V**, 295; **VI**,
 809.
- Electric—Continued.
 light—continued.
 effect on plants, **Rec. III**, 233, 235; **VII**, 559.
 effect on radishes, **Rec. IV**, 351; **V**, 295.
 effect on spinach, **Rec. IV**, 351; **VI**, 809.
 effect on structure of trees and herbaceous
 plants, **Rec. IV**, 315, 432.
 effect on sugar beets, **Rec. V**, 265.
 effect on trees, **Rec. IV**, 315.
 effect on violets, **Rec. IV**, 351.
 for creameries, **Rec. V**, 656.
 use in growing Easter lilies, **Rec. XI**, 937.
- lights of different colors, effect on plants, **Rec.**
V, 295.
- phenomena—
 in Euphrates Valley, **Rec. XII**, 831.
 observations, **Rec. VII**, 475.
- plants on farms, **Rec. VI**, 252.
- plow. (*See* Plows.)
- signal apparatus, **Rec. X**, 419.
- treatment for improvement of oils, **Rec. V**, 735,
 waves—
 in atmosphere, **Rec. IX**, 531.
 influence on plants, **Rec. V**, 254.
- Electrical—
 and dust storm in Oklahoma, **Rec. VII**, 474.
 apparatus for temperature reading in silage,
Rec. V, 60.
 Congress, International, **Rec. XI**, 621.
 districts, **Rec. IX**, 424, 531; **X**, 1018.
 energy, climate as a factor in transmission,
Rec. IX, 814.
 method for soils, **Rec. IX**, 535; **X**, 30.
 methods for determination of sugar, **Rec. X**,
 117.
 purification of water, **Rec. VI**, 196.
 resistance for determining moisture of soils,
Rec. III, 316.
 sanitation, **Rec. VI**, 283.
- storms—
 in California, **Rec. IX**, 815.
 Kansas, **Rec. X**, 325.
- Electricity—
 as a motive power for the farm, **Rec. VII**, 72.
 atmospheric, **Rec. IX**, 332, 533, 814.
 atmospheric—
 diurnal variation, **Rec. XI**, 432.
 early experiments, **Rec. VIII**, 675.
 effect on growth of plants, **Rec. III**, 926;
VII, 749.
 effect on root crops, **Rec. VI**, 537.
 methods and instruments, **Rec. VII**, 283.
 observations, **Rec. III**, 487.
 recent investigations, **Rec. VII**, 282.
 best source for chemical laboratories, **Rec.**
IV, 613.
- effect on—
 aquatic plants, **Rec. VIII**, 380, 747.
 bacteria, **Rec. VII**, 928; **VIII**, 472.
 bacterial toxins, **Rec. VII**, 928.
 germination, **Rec. VIII**, 989; **IX**, 53.
 germination of seed, **Rec. IV**, 315; **XI**,
 355, 462.
 micro-organisms, **Rec. IX**, 627.
 oxygen content of water, **Rec. XI**, 133.

Electricity—Continued.

effect on—continued.

plants, Rec. V, 905; VI, 543, 638; VII, 188, 925; X, 122, 825; XI, 25, 1016; XII, 825.
vegetables, Rec. V, 784.

for aging and conserving wines, Rec. V, 214, farming, Rec. VI, 582.

heating sugar ovens, Rec. V, 656.

plows, Rec. VI, 848; VII, 531.

purifying sugar-beet juice, Rec. IV, 988.

seasoning wood, Rec. XI, 855.

sterilizing milk, Rec. V, 1052.

testing milk, Rec. III, 421, 576.

in agriculture, Rec. IV, 702; VII, 809; XI, 598, 926.

horticulture, Rec. VI, 222.

of the air and lightning, Rec. XI, 322.

physiological action, Rec. XII, 178.

static, effect on roots, Rec. XI, 907.

Electro-culture—

experiments, Rec. VII, 579.

experiments—

on beets, Rec. IX, 551.

with vegetables, Rec. V, 784.

in Belgium, Rec. VII, 35.

of plants, Rec. III, 517; IV, 315, 352; V, 127, 254, 294, 295, 783, 785, 905; VI, 142, 543, 638, 809; VII, 559, 925; VIII, 380, 747; X, 122, 825; XI, 25, 552, 1016; XII, 825.

violets, Rec. IV, 351.

progress in, Rec. V, 347.

Electro-germination, experiments, Rec. IX, 454.

Electro-horticulture, Rec. VI, 222, 424, 638, 902.

Electro-horticulture—

experiments, Rec. IV, 349; VIII, 789.

range of incandescent lamps, Rec. VIII, 268.

Electrodynamic radiations from the sun, Rec. VIII, 676.

Electrolysis for determination of nitric acid, Rec. IX, 420; X, 20.

Electrolytes, mutual solubility of certain pairs, Rec. XI, 1099.

Electrolytic—

determinations and separations, Rec. XI, 510.

dissociation, Rec. XI, 710.

Electrometer, description, Rec. III, 487.

Electroradiophone for studying distant storms, Rec. XII, 725.

Electrotechnics in agriculture, Rec. IX, 895.

Element, new chemical, Rec. VI, 14.

Eleocharis—

acuminata, notes, Rec. VI, 404.

obtusata, notes, Rec. VI, 404.

palustris—

analysis, Rec. IV, 732.

notes, Rec. VI, 404.

rostellata, notes, Rec. II, 487.

Eleodes tricostrata on cabbages, Rec. IV, 203.

Elephant beetle, notes, Rec. XII, 774.

Eleusine— (See also CRAB GRASS.)*egyptiaca*—

analyses, Rec. III, 318.

notes, Rec. II, 491; VI, 823.

analyses, Rec. V, 65.

barcinonensis, notes, Rec. X, 244.

Eleusine—Continued.*corocana*—

analyses, Rec. VI, 982.

culture experiments in India, Rec. V, 333.

notes, Rec. VI, 45, 403; X, 244.

indica—

notes, Rec. I, 183; VI, 823.

root system, Rec. IV, 47.

stricta, notes, Rec. VIII, 401.

Elevator—

chaff, analyses, Rec. I, 80.

screenings, analysis, Rec. VI, 153.

Elionurus tripsacoides, notes, Rec. III, 548.

Ellenberger, Cyrus, notes on death, Rec. XII, 520.

Ellopia somiaria, notes, Rec. III, 359.

Elm— (See also ULMUS.)

American—

insect enemies, Rec. IX, 772.

notes, Rec. IV, 155; XII, 559.

aphis—

notes, Rec. I, 12; IX, 965; X, 164; XII, 367.

remedies, Rec. IX, 1065.

bark beetle, notes, Rec. XII, 158.

bark louse—

imported, notes, Rec. VI, 742; VII, 141; X, 164, 569; XI, 762.

notes, Rec. II, 669; VII, 878, 880; IX, 662, 858.

borer—

imported, notes, Rec. III, 298; VI, 649.

notes, Rec. II, 669; V, 884; IX, 962.

camperdown weeping, notes, Rec. IV, 655.

diseases, notes, Rec. XII, 157.

gall louse, notes, Rec. II, 669.

leaf beetle—

imported, notes, Rec. III, 298, 309, 415; VII, 313; VIII, 147, 503, 804; IX, 662; XII, 158.

(See also GALERUCELLA LUTEOLA.)

insecticides for, Rec. II, 415.

kerosene emulsion with London purple for, Rec. III, 415.

notes, Rec. II, 669; V, 64, 402, 403; VI, 649, 651, 835; VII, 696; VIII, 418; IX, 371, 962; X, 660, 1066; XI, 66, 762; XII, 263, 368.

remedies, Rec. VII, 145, 314, 595; VIII, 415, 505, 804, 904; IX, 470, 661.

leaf caterpillar, notes, Rec. I, 12.

leaf miner, notes, Rec. X, 1067.

leaf rust, notes, Rec. IX, 457.

leaf skeletonizer, notes, Rec. XII, 158.

purple leaf, Rec. VIII, 314.

red, notes, Rec. III, 521; IV, 655.

rock, notes, Rec. IV, 655; VIII, 604; X, 232.

sawfly, notes, Rec. I, 21; II, 663.

slippery, notes, Rec. IV, 655.

spanworm, notes, Rec. IX, 663.

tree—

exudation, analyses, Rec. V, 194.

parasite, notes, Rec. XI, 467.

white scale, Rec. VIII, 146.

trees—

notes, Rec. VII, 134.

notes on species, Rec. II, 512, 663, 741.

rate of growth, Rec. IV, 45.

- Elm—Continued.
 twig-girdler—
 life history, Rec. XI, 1066.
 notes, Rec. X, 369.
 weeping slippery, notes, Rec. IV, 655.
 white—
 cost of planting, Rec. XI, 854.
 in the West, Rec. VI, 730.
 notes, Rec. I, 315; III, 521, 788; IV, 655, 829; VI, 993; VIII, 604.
 winged, notes, Rec. VII, 870.
 wych, ash analyses of leaves, Rec. XII, 1006.
- Elutriation—
 apparatus, Schöne's, Rec. V, 924.
 process for soils, Rec. VIII, 574, 966.
- Elutriator, churn, for soil analyses, Rec. V, 562.
- Elutriators, methods of operation, Bul. 2, I, 138.
- Elymus*—
americanus, notes, Rec. II, 321.
angustus, notes, Rec. VIII, 748.
arenarius, notes, Rec. IV, 951; VI, 415; XI, 423.
arvicola, n. sp., notes, Rec. XI, 28.
brownii, notes, Rec. IX, 328.
canadensis—
 analyses, Rec. VIII, 810.
 notes, Rec. II, 321, 329; X, 343; XII, 436.
capitatus, notes, Rec. X, 516.
ciliatus, notes, Rec. X, 516.
condensatus, notes, Rec. II, 321; IV, 951.
dasystachys littoralis, notes, Rec. IX, 328.
flavescens, notes, Rec. IX, 328; XI, 423.
hanseni, notes, Rec. X, 516.
glaucofolius, notes, Rec. XII, 436.
intermedius, notes, Rec. VIII, 748.
robustus, notes, Rec. VIII, 748.
saxicola, notes, Rec. X, 516.
sibiricus, notes, Rec. II, 321.
simplex, notes, Rec. X, 516.
sitanion, notes, Rec. II, 321; III, 548; IX, 348.
 sp., notes, Rec. VIII, 780.
striatus—
 analyses, Rec. VIII, 810.
 notes, Rec. VI, 404.
triticoideus, notes, Rec. IV, 951; IX, 348.
virginicus, notes, Rec. II, 487, 658; IV, 248; VI, 404; XII, 332, 436.
- Emasculating flowers, Rec. VIII, 566.
- Ematurga faxonii*, notes, Rec. X, 569.
- Embedding—
 new method, Rec. IX, 330.
 small objects, Rec. VII, 750.
 tissue without hardening in alcohol, Rec. IX, 996.
- Embiidæ, studies, Rec. IX, 773.
- Emblethis arenarius*, notes, Rec. VI, 150.
- Embryo—
 and grain, relation, Rec. VII, 188.
 sac—
 of fleshy plants, Rec. VIII, 28.
 structure, Rec. VIII, 204.
 sacs, development, Rec. XI, 818.
- Embryology of Betulaceæ, Rec. VI, 279.
- Embryos of phanerogams, position, Rec. V, 1027.
- Emmenthaler cheese. (See CHEESE.)
- Emperor moth, notes, Rec. II, 115, 663, 664; V, 206.
- Empetrichthys merriami*, n. sp., notes, Rec. V, 90.
- Emphysema, pulmonary, with chronic bronchitis, diagnosis, Rec. XI, 1091.
- Emphytus*—
cinctus. (See ROSEWORM, CURLED.)
maculatus, notes, Rec. II, 405; XII, 68.
 (See also MONOSTEGIA IGNOTA.)
 sp., notes, Rec. VIII, 905.
- Employees in Department of Agriculture, number, status, and compensation, Rec. IX, 899.
- Employment agencies for the use of farmers, Rec. XII, 798.
- Empoa albopicta* notes, Bul. 2, II, 119; Rec. IX, 663.
- Empoasca*—
albolinea, notes, Rec. X, 770.
alboneura, notes, Rec. X, 770.
atrolabes, notes, Rec. X, 770.
denticula, notes, Rec. X, 770.
incisa, notes, Rec. X, 770.
livingstonii, notes, Rec. X, 770.
mali on potato vines, Rec. IX, 68.
mexicana, notes, Rec. X, 770.
pallida, notes, Rec. X, 770.
pergandei, notes, Rec. X, 770.
radiata, notes, Rec. X, 770.
robusta, notes, Rec. X, 770.
snowi, notes, Rec. X, 770.
splendida, notes, Rec. X, 770.
trifasciata, notes, Rec. X, 770.
tumida, notes, Rec. X, 770.
unicolor, notes, Rec. X, 770.
- Empretia stimulca*, notes, Rec. III, 54; IV, 838; XI, 954.
- Empusa*—
aphidis—
 as a disease of chinch bugs, Rec. III, 834; VI, 150.
 notes, Rec. XI, 564.
aulicæ, notes, Rec. VI, 149; XI, 67.
fresenii, notes, Rec. XI, 564.
grylli—
 form *aulicæ*, notes, Rec. III, 10.
 notes, Bul. 2, I, 176; Rec. VIII, 998; IX, 855; X, 273.
jassi, notes, Rec. VI, 149.
lampyridarum, notes, Bul. 2, I, 176.
muscæ, notes, Rec. IV, 50; VI, 149.
pachyrrhinæ, notes, Rec. VI, 149.
phalangicida—
 n. sp., notes, Rec. XI, 361.
 notes, Rec. X, 1057.
- Emulsin—
 as affected by borax, Rec. XI, 962.
 ferment analogous to, in fungi parasitic on trees, Rec. V, 819.
 in lichens and fungi, Rec. X, 929.
Manihot spp., Rec. VI, 873.
- Emulsion for chicken lice, Rec. VIII, 612.
- Enalagma annexans*, notes, Bul. 2, II, 93.
- Encapsuling of starch grains, Rec. VIII, 957.
- Encarsia flavoscutellum*, notes, Rec. XII, 869.
- Enchanter's nightshade, notes, Rec. IX, 956.
- Enchytræidæ parasitic on sugar beets, Rec. IX, 61.
- Enchytræus*—
pavulus, notes, Rec. IX, 363.
 sp., notes, Rec. X, 562.

- Eucyrtid, new species, *Rec. II*, 455.
 Eucyrtinae genera, *Rec. XII*, 870.
Eucyrtus—
 disiocampe, notes, *Rec. V*, 311, 312.
 johsoni, notes, *Rec. IX*, 776.
 plenaridis, notes, *Rec. V*, 312.
 Endive—
 analyses, *Rec. IX*, 873.
 culture, *Rec. VI*, 405; *IX*, 357.
 electro-culture, *Rec. IV*, 351.
 fertilizer experiments, *Rec. VII*, 504.
 notes, *Rec. X*, 547.
 varieties, *Bul. 2*, *II*, 89; *Rec. VI*, 142; *VII*, 405.
 winter preservation, *Rec. XI*, 744.
 Endocarditis—
 in hog cholera, *Rec. XII*, 294.
 swine, *Rec. IV*, 694.
 inoculation for, *Rec. VII*, 252.
 notes, *Rec. XI*, 290, 794.
 Endoderm and pericycle in *Trifolium*, *Rec. VIII*, 957.
 Endodermis of roots, cause of cell-wall striation, *Rec. IV*, 870.
 Endoglobular hematozoa of sheep, *Rec. XI*, 797.
Endomyces—
 albicans, notes, *Rec. X*, 1013.
 magnusii, notes, *Rec. VII*, 876.
 Endomychidae, monograph, *Rec. XI*, 562.
 Endosperm—
 occurrence of diastase in, *Rec. IV*, 984.
 of maize, hybrid fecundation, *Rec. XII*, 421.
 significance in viviparous mangrove plants, *Rec. V*, 818.
 Endotrichinae, classification, *Rec. VIII*, 808.
 Energy—
 conservation, *Rec. X*, 667.
 conservation, in the human body, *Rec. XI*, 576.
 expended in bicycle riding, *Rec. X*, 281.
 in man, measurement, *Rec. X*, 678.
 metabolism of, *Rec. XI*, 374.
 of foods and feeding stuffs. (*See* FOODS, FEEDING STUFFS, etc.)
 of living protoplasm, *Rec. VII*, 656.
 produced by combustion of albuminoids in the body, *Rec. VI*, 163, 242.
 production by sugar, *Rec. XI*, 184.
 source, *Rec. IX*, 681.
 Engineer, State—
 of Utah, report, *Rec. X*, 897.
 Wyoming, report, *Rec. X*, 897.
 Engineering—
 courses—
 preparatory work, *Rec. X*, 708.
 shop training in, *Rec. VIII*, 558.
 Education, Society for the Promotion of, *Rec. VII*, 341.
 electrical, in Utah, *Rec. IX*, 319.
 experiment stations, *Rec. IX*, 297.
 laboratory in its relation to the public, *Rec. VIII*, 558.
 mechanical, education in, *Rec. VIII*, 558; *IX*, 297.
 standards and land-grant colleges, *Rec. X*, 713.
 theoretical v. practical, *Rec. VII*, 174.
 Engines—
 oil, trials of, *Rec. VI*, 848.
 petroleum, trial at Borreby, 1893, *Rec. V*, 541.
 English sparrow—
 injury caused by, *Rec. II*, 110.
 in North America, *Rec. I*, 108.
 laws relating to, *Rec. II*, 110.
 notes, *Rec. II*, 110; *IV*, 848.
 English walnuts, varieties, *Rec. I*, 229.
 Entological instruction in Italy, *Rec. IV*, 236, 329.
 Entological station—
 of Haro, report, *Rec. XII*, 195.
 Spain, report, *Rec. XI*, 293.
 Ensiling— (*See also* CORN, ENSILING; SILAGE, etc.)
 damaged crops, *Rec. VIII*, 689.
 new method, *Rec. XI*, 644.
 potatoes, *Rec. VIII*, 689; *IX*, 268; *X*, 397; *XI*, 1038.
 Enteric fever, Croonian lectures, *Rec. X*, 497.
 Entero-hepatitis—
 differential diagnosis, *Rec. XI*, 985.
 in turkeys, *Rec. VIII*, 158.
Entilia sinuata, notes, *Rec. IV*, 851.
Entomela ignobilis, notes, *Rec. XI*, 658.
 Entomogenous fungi—
 cultures, *Rec. VII*, 412.
 notes, *Rec. VI*, 149.
 Entomological—
 and Natural History Society of London, *Rec. VI*, 440.
 apparatus, *Rec. VIII*, 710.
 Club of the American Association for the Advancement of Science, meeting, *Rec. II*, 258; *IV*, 668.
 collection of the New York Cornell Station, *Rec. II*, 502.
 collections, improvement, *Rec. VIII*, 416.
 experimentation, laboratory method, *Rec. II*, 268.
 illustrations, *Rec. V*, 515.
 Institute of Sweden, report, *Rec. X*, 571.
 instruction in Iowa, *Rec. IV*, 852.
 notes from—
 California, *Rec. XI*, 1100.
 Canada, *Rec. XI*, 1100.
 Colorado, *Rec. XI*, 1100.
 observations in France, *Rec. VII*, 316.
 publications, *Rec. VI*, 739.
 section of the Association of Colleges and Stations, *Rec. II*, 268, 673.
 service, voluntary in New York, *Rec. XI*, 951; *XII*, 264.
 Society of—
 Ontario, report, *Rec. XII*, 264.
 Washington, proceedings, *Rec. XI*, 264.
 specimens, photographic enlargement, *Rec. IX*, 468.
 station—
 at Florence, Italy, *Rec. IV*, 237.
 in Italy, origin and work, *Rec. XI*, 475.
 of Sweden, *Rec. XI*, 66; *XII*, 271.
 suggestions and inquiries, *Rec. I*, 134.
 work—
 cooperative, *Rec. VI*, 650.
 in Central Park, New York, *Rec. III*, 327.
 experiment stations, *Rec. VI*, 264, *VII*, 433.
 the Indian Museum, *Rec. VII*, 593.
 reform in, *Rec. VII*, 180.

Entomologist—

- of California, report, Rec. X, 375.
- Cape of Good Hope, report, Rec. XI, 759.
- Ceylon, report, Rec. XI, 273.
- Colorado, report, Rec. XI, 370.
- Dorpat, Russia, report, Rec. XI, 272.
- Hawaii, report, Rec. VIII, 911.
- Illinois, report, Rec. X, 1064.
- New York, report, Rec. X, 1065, 1066.
- Norway, report, Rec. VII, 518, 969; IX, 372, 674; X, 68, 768; XI, 765.
- Sweden, report, Rec. VI, 742; X, 1076; XI, 66, 172, 675.
- West Java, report, Rec. XI, 370.

Entomologists—

- Association of Economic, Rec. II, 269, 455; V, 514, 543; VI, 650, 1008; VIII, 414; IX, 690; X, 60.
- cooperation, Rec. VIII, 414,
- directory, Rec. XII, 168.
- in the experiment stations, Rec. II, 269.

Entomology— (See also INSECTS, and specific kinds.)

- applied—
 - in America, Rec. X, 60.
 - the Old World, Rec. XI, 265.
 - outlook, Rec. II, 269.
- clinical, bibliography, Rec. XII, 867.
- economic, Rec. IX, 660, 967.
- economic—
 - American, Rec. X, 470.
 - bibliography, Rec. VII, 147; VIII, 614.
 - catalogue at World's Fair, Rec. V, 328.
 - duty, Rec. X, 1058.
 - historical sketch, Rec. VI, 650.
 - in Ireland, Rec. VII, 231; VIII, 1002.
 - North Carolina, Rec. VIII, 557.
 - progress during the nineteenth century, Rec. XI, 1099.
 - progress in the United States, Rec. XII, 467.
 - report, Rec. IV, 402.
 - studies, Rec. VI, 742.
- ethics, Rec. X, 1061.
- experimental, Rec. IX, 861; XII, 974.
- glossary, Rec. IX, 467.
- literature in—
 - nineteenth century, Rec. XII, 972.
 - Russia, Rec. XII, 665.
- North American, list of works, Rec. XII, 774.
- note and record keeping, Rec. V, 515.
- of the Illinois River, Rec. VII, 596.
- the oak, Rec. X, 167.
- practical, Rec. VII, 882; VIII, 612.
- speculative method, Rec. VII, 596, 791.
- teaching, Rec. IX, 319.

Entomophthora—

- aphidis, notes, Rec. X, 1070.
- aphrophoræ, notes, Rec. VII, 839.
- australis, notes, Rec. XI, 766.
- planchoniana in Italy, Rec. XI, 275.
- sphaerosperma, notes, Rec. VI, 149.

Entomophthora on destructive locusts, Rec. V, 101.

Entomophthoræ, notes, Rec. V, 937, 1037.

Entomoscelus—

- adonidis—
 - damaging rape fields, Rec. VIII, 69.
 - notes, Rec. IV, 437; V, 630; IX, 856.
- sacra damaging rape fields, Rec. VIII, 69.

Entomosporium maculatum. (See PEAR, PLUM, and QUINCE LEAF BLIGHT.)

Entozoa in Hawaiian Islands, Rec. XII, 889.

Entozoic neo-formation, Rec. IX, 194.

Entropy, principle of, Rec. VI, 163.

Entyloma—

- ellisi, notes, Rec. II, 242.
- florkeæ, gonidial chains, Rec. VI, 487.
- lephoroideum on sugar beets, Rec. VI, 147.
- physalidis, notes, Rec. IV, 50.

Entyloma, notes, Rec. V, 418.

Entypella populi, notes, Rec. VIII, 867.

Environment, effect—

- on color of insects, Rec. XI, 870.
- development of grapes, Rec. XI, 52.
- insect life, Rec. IX, 252.

Enzootic cerebro-spinal meningitis in horses, Rec. X, 998.

(See also CEREBRO-SPINAL MENINGITIS.)

Enzym—

- in liver secretion of *Helix pomatice*, Rec. X, 583.
- Spiræa, Rec. XI, 715.
- young plants, occurrence and significance, Rec. V, 1027.
- of Népenthès, proteolytic, Rec. XI, 124.
- Penicillium glaucum*, Rec. XII, 722.
- yeast, alcohol-producing, Rec. XI, 123.
- proteolytic—
 - in germinating barley, Rec. XII, 916.
 - germinating seeds, Rec. XII, 722.

Enzymes—

- action on milk sugar, Rec. IV, 584.
- and bacteria, chemistry, Rec. X, 1017.
- as affected by formaldehyde, Rec. XI, 125, 511, 715.
- bacteriolytic, and immunity, Rec. XI, 194.
- chemical nature, Rec. XII, 117.
- diastatic, of plants, nature, Rec. III, 749.
- digestion of cellulose by, Rec. IX, 120.
- effect on germination of seeds, Rec. XI, 354.
- formation by alcoholic ferments, Rec. XII, 915.
- in barley, Rec. IX, 120, 624, 628.
- cellulose, notes, Rec. XI, 124.
- cheese, studies, Rec. XII, 88, 484, 682, 801.
- malt, Rec. VII, 657.
- milk, Rec. X, 785; XI, 578; XII, 87.
- plants, Rec. XII, 916.
- seeds, distribution, Rec. XI, 125.
- yeast, Rec. VII, 658, 659.
- proteolytic in plants, Rec. V, 1027; X, 1017.
- solution of cellulose by, Rec. VII, 914.
- tryptic, of micro-organisms, Rec. III, 749.
- used in brewing and distilling industries, Rec. X, 122.

Eosin reaction—

- with butter, Rec. IV, 97.
- margarine, Rec. IV, 97.

Epacromia—

- dorsalis, notes, Rec. XII, 770.
- terminalis, notes, Rec. XII, 270.

Epeiranthus obfirmaria, notes, Rec. IX, 966.

Ephedra—

- nevadensis, notes, Rec. X, 343.
- viridis, notes, Rec. VI, 114.

Ephedrus incompletus, notes, Rec. X, 1059.

Epheméridæ, compound eyes, Rec. IX, 965, 1070.

Ephestia—*cahiritella*, notes, Rec. IX, 852.*calidella*, notes, Rec. IX, 853.*cautella*, notes, Rec. XII, 869.*clutella*—

in compressed vegetables, Rec. X, 769.

notes, Rec. VI, 567; IX, 853.

ficulella, notes, Rec. IX, 853.*interpunctella*, notes, Rec. II, 455; VI, 1008.*kühniella*—

in milks of France, Rec. IV, 615.

notes, Rec. II, 5; III, 359; VII, 515, 595, 789;

VIII, 241, 417, 610, 909; IX, 1065; XI, 952;

XII, 1061.

remedies, Rec. XI, 871.

sp., notes, Rec. VI, 315; IX, 853.

Ephialtes—*irritator* as an enemy of the peach-tree borer,
Rec. XII, 63.

spp., notes, Rec. IV, 852.

Ephippiger terrestris, notes, Rec. VI, 838.*Epicærus imbricatus*, notes, Rec. VIII, 418, 504, 911;
IX, 463; XI, 364; XII, 362.*Epicampes*—*macroura*, notes, Rec. II, 259.*rigus*, notes, Rec. II, 259."Epicarin," effect on mange bites of dogs, Rec.
XI, 870.*Epicauda*— (See also BLISTER BEETLES.)*cinerea*, notes, Bul. 2, I, 101; Bul. 2, II, 93;

Rec. VI, 38, 151; VIII, 136; IX, 662; XII, 575.

lemniscata, notes, Rec. VI, 151.*maculata*, notes, Rec. II, 734; X, 460.*marginata*. (See EPICAUTA CINEREA.)*pennsylvanica*, notes, Bul. 2, I, 101; Bul. 2, II,
93; Rec. II, 734; III, 228; V, 685; VI, 151;

VIII, 146, 905; IX, 67, 458, 662.

spp., notes, Rec. V, 101, 206; VIII, 145.

trichrus, notes, Bul. 2, II, 93; Rec. X, 61.*vittata*, notes, Bul. 2, II, 93; Rec. II, 734; V,
685; VI, 151; XI, 952.*Epicomotis hirta*, notes, Rec. XI, 563.*Epicrosis terebrans*, notes, Rec. VI, 316.*Epidapus scabies*, notes, Rec. V, 935; VI, 651; VIII,
320; IX, 962.Epidemics, spread by winds and rains, Rec. VII,
845.

Epiderm of leaves, mucilaginous, Rec. XI, 116.

Epidermis of roots, cause of thickening of cell
membrane, Rec. V, 539.*Epidosis cerealis*, notes, Rec. X, 568.*Epilachna*—*borealis*, notes, Rec. III, 309; V, 404; VI, 833;
XI, 362.*corrupta*, notes, Rec. IV, 58; IX, 446; XI, 470.*28-punctata*, notes, Rec. VII, 792.*varivestis*, notes, Rec. XII, 974.*Epilepsy*—

in domestic animals, Rec. XI, 696.

of poultry, notes, Rec. XII, 894.

parasitic cause, Rec. XII, 598.

Epilobium paniculatum, notes, Rec. III, 598.

Epipaschiinae, classification, Rec. VIII, 808.

Epiphegus virginiana, notes, Rec. II, 22.*Epiphytes*—

ash analyses, Rec. X, 120.

extratropical, Rec. VII, 748.

Epithelioma contagiosum, pathological anatomy,
Rec. XII, 994.*Epitrix*—*crinita*, notes, Rec. IV, 58.*cucumeris*, notes, Rec. III, 198; X, 66; XI, 365;
XII, 974.*fuscula*, notes, Rec. VIII, 136; XI, 365.*parvula*, notes, Rec. III, 860; V, 685; VII, 594;
VIII, 136; X, 66, 569; XI, 365, 471, 871.*Epochra canadensis*, notes, Rec. VIII, 806; IX,
673, 858; X, 866, 869.

Epsom salts, analyses, Rec. VIII, 563; IX, 919.

Equations of hydrodynamics, Rec. IX, 533, 631.

Equine distemper, Rec. XI, 495.

Equinoctial storms, Rec. XII, 1016.

Equisetum—*arvense*, notes, Rec. V, 720.*limosum*, notes, Rec. V, 720.*palustre*—

analyses, Rec. IV, 972.

eradication, Rec. X, 556.

notes, Rec. V, 720.

spp., analyses, Rec. V, 720.

Equisetum—

karyokinesis, Rec. VIII, 957.

nature and repression, Rec. V, 438, 720.

Eragrostis—*abyssinica*, notes, Rec. IV, 411; VI, 97.*brownii* as a forage plant, Rec. X, 725.*curtipedicellata*, notes, Rec. III, 548.*lugens*, notes, Rec. III, 548.*lutescens*, n. sp., notes, Rec. XI, 28.*major*, notes, Rec. X, 343.*multiflora*, notes, Rec. VI, 403.*obtusiflora*, anatomical studies, Rec. IX, 328.*oxylepis*, notes, Rec. III, 548.*pectinacca*, notes, Rec. VIII, 781.*pilosa*, notes, Rec. VI, 403; X, 343.*poroides*, notes, Rec. II, 321.*purshii*, notes, Rec. II, 321; III, 548; VI, 403.*secundiflora*, notes, Rec. X, 343.

sp., anatomical studies, Rec. IX, 1027.

trichodes, notes, Rec. XII, 436.*viscosa*, notes, Rec. X, 516.*Eragrostis*, synonymy, Rec. V, 937.*Erastria scitula*, notes, Rec. V, 514.

"Erborinatura," false, in cheese, Rec. XII, 485.

Erebas odora, notes, Rec. X, 167.*Erechtites hieracifolia*, root system, Rec. IV, 46.*Eremocayrus setigerus*, notes, Rec. III, 598.*Eremochloe*—*bigelovii*, notes, Rec. II, 259.*kingii*, notes, Rec. II, 259; VIII, 306.*Eremophila maculata*, poisonous to stock, Rec. XI,
1057.*Ergot*—as cause of contagious abortion, Rec. XI, 495.
from wild rice, Rec. XII, 359.

in flour and—

bran, determination, Rec. V, 655.

bread, determination, Rec. VII, 425, 523.

in wheat flour, determination, Rec. X, 20.

method of detection, Rec. V, 538.

notes, Rec. III, 172, 479; IV, 925; V, 680; XII,
467.of *Molinia cærulea*, Rec. VII, 224.

rye, notes, Rec. IV, 414.

poisonous to stock, Rec. XII, 911.

prevalence, Rec. I, 170.

Ergotism—

- in cattle, Rec. IV, 188, 925.
- cattle, cause, symptoms, and treatment, Rec. VII, 67.
- horses, Rec. XII, 891.
- Kansas, Rec. IX, 893.
- notes, Rec. XI, 92, 393; XII, 488.

Erianthus—

- laxus*, notes, Rec. IX, 421.
- ravennæ*, notes, Rec. IV, 654.
- tracyi*, n. sp., notes, Rec. VIII, 567.

Erica—

- arborea*, production in Italy, Rec. XII, 795.
- willmorei*, culture, Rec. XII, 754.

Ericaceæ sp., tannin in, Rec. VII, 993.

Ericas, fertilizer experiments, Rec. IX, 141.

Eriocydnus maculipennis, notes, Rec. V, 311, 312.

Erigeron—

- annuus*, notes, Rec. III, 303, 598.
- calvus*, notes, Rec. VI, 114.
- canadensis*, root system, Rec. IV, 46.
- spp., notes, Rec. V, 398.
- strigosus*, root system, Rec. IV, 46.

Erigone albescens, notes, Rec. X, 273.

Erigorgus melanobatus, notes, Rec. XII, 865.

Eriocampa—

- cerasi*. (See PEAR SLUG.)
- horticola*, notes, Rec. VIII, 612.
- limacina*. (See PEAR SLUG.)

Eriocampoides limacina. (See PEAR SLUG.)

Eriochilton theæ, n. sp., Rec. XII, 369.

Eriochloa—

- annulata*, notes, Rec. VI, 94.
- aristata*, notes, Rec. VI, 94.
- punctata*, notes, Rec. VIII, 306; X, 343.
- sericea*, notes, Rec. II, 259.

Eriococcus—

- n. sp., notes, Rec. VII, 517.
- paradoxus indica*, notes, Rec. XI, 1063.
- spp., notes, Rec. XII, 68.

Eriogonum—

- brachyanthum*, notes, Rec. VI, 114.
- nivale*, notes, Rec. VI, 114.
- parvifolium*, analyses, Rec. XII, 981.

Eriopeltis festuca, notes, Rec. VIII, 906; IX, 855; XII, 368.

Eriosphæria sacchari, notes, Rec. X, 57.

Erischistus tristigmus, notes, Rec. VI, 741.

Ermine moth, notes, Rec. IX, 260; XII, 469.

Erodium—

- cicutarium*—
- analyses, Rec. VIII, 714, 810; X, 876.
- germination, as affected by light, Rec. XII, 1049.
- notes, Rec. III, 598; IV, 47; VII, 511; X, 343.
- moschatum*, notes, Rec. III, 598, 599.

Erosion—

- by water, power of soils to resist, Rec. VII, 486.
- due to heavy rains, Rec. XII, 1015.

Erotylidæ, monograph, Rec. XI, 562.

Eruca sativa—

- culture experiments in India, Rec. V, 333.
- notes, Rec. V, 1022; IX, 957.

Ervum monanthos, notes, Rec. V, 621.

Erysimum, properties, Rec. XII, 912.

Erysimum—

- asperum*, notes, Rec. IV, 167, 699.
- asperum perenne*, notes, Rec. VI, 114.
- cheiranthoides*, notes, Rec. IV, 167, 699.
- officinale*, notes, Rec. III, 598.
- orientale*, notes, Rec. VII, 588; VIII, 892.
- repandum*, notes, Rec. XI, 315.

Erysipelas—

- in pigs, Rec. VIII, 525; IX, 889; XI, 290.
- transmission by insects, Rec. XI, 995.

Erysiphaceæ, monograph, Rec. XII, 461.

Erysipheæ—

- characters of, Bul. 2, II, 35.
- haustoria, Rec. XII, 219.
- notes, Rec. VI, 311; VIII, 899.
- of Montana, Rec. I, 170.
- Ohio, Rec. V, 279.
- on Phytoplus distortions, Rec. I, 170.
- perithecia of, Rec. VII, 838.

Erysiphe—

- cichoracearum*, notes, Rec. IV, 49; V, 192.
- communis*, notes, Rec. IV, 50; VI, 305.
- euphorbiæ*, notes, Rec. IV, 50.
- galeopsidis*, notes, Rec. V, 881.
- graminis*—
- affecting cereals, Rec. XI, 1057.
- notes, Rec. VI, 437; VIII, 307; XII, 218.
- horridula*, notes, Rec. VI, 305.
- martii*, notes, Rec. IX, 656; XI, 752.
- [*sphaerothera*] *pamosa*, notes, Rec. I, 83.
- spp., notes, Rec. V, 881; VI, 58.
- tuckeri*. (See GRAPE DOWNY MILDEW.)

Erythræa mulhlenbergii, notes, Rec. III, 598.

Erythroneura—

- spp., notes, Rec. I, 13.
- vitis*, notes, Rec. III, 198; VIII, 999; IX, 664; X, 165.

Erythrosin as an indicator, Rec. XI, 311.

Escholtzia crocea, notes, Rec. III, 599.

Espalier—

- apple culture, Rec. VII, 867.
- grape culture, Rec. VI, 221; VII, 505.

Esparcet. (See SAINTFOIN.)

Espy and the Franklin kite club, Rec. VIII, 675.

Essences, antiseptic properties, Rec. V, 349.

Ethemaiia sellata, notes, Rec. XII, 367.

Ether—

- and the atmosphere, Rec. XI, 620.
- as a solvent for fats of feeding stuffs, Rec. II, 488.
- extract. (See FAT.)
- for forcing plants, Rec. XII, 243.
- oat smut, Rec. II, 639.
- wheat smut, Rec. II, 221.

Ethereal oils, effect on fungi, Rec. X, 929; XI, 168.

"Etherion," a new gas discovery, Rec. X, 412.

Ethiopian apple, notes, Rec. II, 739.

Ethno-botanic gardens, Rec. VII, 563.

Ethno-botany, purposes of, Rec. VII, 750.

Etiolation in plants, Rec. VIII, 290.

Etiology—

- of actinomyces, Rec. X, 495.
- epizootic abortion, Rec. X, 497.
- rinderpest, Rec. VIII, 159.

Etionurus barbiculmis, notes, Rec. II, 259.

Euacanthus—*acuminatus*, notes, Rec. IX, 153.*interruptus*, notes, Rec. V, 236.*Eubya cognitaria*, notes, Rec. X, 869.*Eucalypti*— (See also EUCALYPTUS.)

at Santa Monica, Rec. XII, 955.

in Arizona, Rec. XI, 855; XII, 798, 1049.

California, Rec. VIII, 136.

New South Wales, Rec. XII, 248.

notes, Rec. VI, 488.

Eucalyptus—*botryoides*, notes, Rec. XI, 747.*citriodora*, notes, Rec. IV, 557; VI, 427.*corymbosa*, notes, Rec. VII, 839; VIII, 605.*corynocalyx*, notes, Rec. XI, 1052.*globosus*, notes, Rec. VI, 427.*globulus*—affected by *Phylacteophaga eucalypti*, Rec. XI, 564.

in foothill region of California, Rec. XI, 941.

longifolia, notes, Rec. VIII, 28.*maculata*. (See GUM, SPOTTED.)*meliiodora*, notes, Rec. XI, 1052.*microcorys*, notes, Rec. VI, 144; XI, 747.*platyphylla*, notes, Rec. XI, 747.*resinifera*, notes, Rec. XI, 747.*robusta* in foothill region of California, Rec. XI, 941.*rostrata*, notes, Rec. XI, 855.*saligna*, notes, Rec. VI, 730.

spp., notes, Rec. IX, 358; XII, 562.

tereticornis, notes, Rec. VI, 427; XI, 1052.*tessellaris*, notes, Rec. XI, 747.*Eucalyptus*— (See also EUCALYPTI.)

classification of species, Rec. XI, 458.

hybrids, Rec. XII, 613.

oil for horn fly, Rec. V, 205.

rate of growth, Rec. XII, 1048.

timber, studies, Rec. VII, 961.

trees—

notes, Rec. XI, 1052.

uses, Rec. VI, 425.

Eucasin as food, Rec. VIII, 330.*Eucerceris vittatifrons tricolor*, notes, Rec. IX, 372.*Euchæstes eglenensis*, notes, Rec. IX, 487.*Eucharis* culture, Rec. XI, 549.*Euchlena luxurians*, notes, Bul. 2, I, 189; Bul. 2, II, 23; Rec. I, 89; II, 70, 336, 580; III, 17, 143; IV, 248; X, 244.*Euclea*—*delphinii*, food plants, Rec. IX, 862.*indetermina*, food plants, Rec. IX, 574.*querceti*, notes, Rec. III, 54.*Eucleida*, North American, Rec. X, 470.*Eucomia ulmoides*, as a rubber-producing plant, Rec. XI, 1049.*Eucrada humeralis*, notes, Rec. X, 168.*Eudamus*—*proteus*, notes, Rec. VIII, 1002; X, 658; XI, 470.*tityrus*, notes, Rec. III, 47; V, 884.*Eudemis botrana*—

notes, Rec. II, 654; IV, 839; VI, 316; VIII, 803; XI, 367, 952.

remedies, Rec. XII, 662.

Eudemis larvæ, insecticides for, Rec. VI, 236.*Eudiotis*—*hyalinata*, notes, Rec. I, 27.*nitidalis*, notes, Rec. I, 27.*Eudryas grata*, notes, Rec. III, 197.*Eufitchia ribearia*—

notes, Rec. I, 11; IV, 416; V, 206.

parasites, Rec. II, 731.

Eugenia eucalyptoides, notes, Rec. X, 355.*Eugonia subsignaria*, notes, Rec. IX, 663.*Euhæmatopinus abnormis*, notes, Rec. IX, 254.*Eulactol*, digestibility, Rec. XII, 780.*Eulalia japonica*, notes, Rec. IV, 654.*Eulophus femoralis*, notes, Rec. VIII, 320.*Eumenes*—*arbutorum*, notes, Rec. VIII, 912.*pomiformis*, notes, Rec. VIII, 912.*Eumerus lanulatus* affecting potatoes, Rec. XI, 1057.*Eumolopus*—*obscurus* on grapevines, Rec. IX, 862.*vitis*, notes, Rec. VIII, 507, 711; IX, 862; X, 763.*Eunotus lividus*, notes, Rec. VIII, 906.*Euonymus*—*americanus*, notes, Rec. III, 521.*atropurpureus*, notes, Rec. III, 521; IV, 655.*europæus*, notes, Rec. VI, 821.*Euonymus* scale—

in Japan, Rec. VII, 881.

treatment, Rec. VI, 650.

Eupaya slossoniz, parasites, Rec. IX, 263.*Eupatorium*—*ageratoides*, pollination, Rec. IX, 809.*calcestim*, pollination, Rec. IX, 809.*perfoliatum*, analyses, Rec. III, 629.*purpureum*, analyses, Rec. III, 629.*Eupelma* spp., notes, Rec. IV, 852.*Euphorbia*—*carnienensis*, n. sp., notes, Rec. IV, 374.*drummondii*, notes, Rec. VI, 335.

“D,” notes, Rec. VI, 903.

lathyris, notes, Rec. III, 444, 598; V, 874; X, 516.*maculata*—

notes, Rec. V, 911.

root system, Rec. IV, 46.

marginata, notes, Rec. X, 516.*phosphorea*, phosphorescent sap, Rec. X, 23.*prestii*—

notes, Rec. VI, 903.

root system, Rec. IV, 46.

sp., notes, Rec. V, 971, 973.

strictior, notes, Rec. IV, 580.*Euphorbias*, poison in, Rec. V, 922.*Euphoria* corn beetle, notes, Rec. VII, 879.*Euphoria*—*inda*, notes, Bul. 2, I, 99, 170; Rec. III, 783;

IX, 69, 151, 371, 662; XI, 365; XII, 575.

sepulchralis, notes, Rec. VII, 879.*Euphorocera clavipennis*, notes, Rec. X, 62, 1059.*Euphorus* spp., notes, Rec. IV, 852.*Euplectrus comstockii*, notes, Rec. II, 319.*Euproctis*—*chrysorrhæa*. (See BROWN-TAIL MOTH.)*latifascia*, affecting tea, Rec. XI, 1062.*Eupsalis minuta*, notes, Rec. X, 1059; XI, 764.*Eupteryx*—*flavoscuta*, notes, Rec. X, 770.*vanduzeei*, notes, Rec. X, 770.

- Eure Society of Agriculture, Science, and Belles Lettres, proceedings, *Rec. IX*, 398.
- Eureka insecticide—
for red scale, *Rec. II*, 80.
trial of, *Rec. II*, 416.
- Europhen as an antiseptic, *Rec. IV*, 74.
- Eurotia lanata*, notes, *Rec. II*, 321; *VII*, 947; *VIII*, 306; *X*, 343; *XI*, 1034.
- Eurotiosis*—
gayoni, notes, *Rec. VIII*, 960.
new genus of *Ascomycetus*, *Rec. V*, 923.
- Eurotium aspergillus*, new species, *Rec. IX*, 525.
- Eurycreon rantis*, notes, *Bul. 2, I*, 31; *Rec. I*, 12; *II*, 734; *IV*, 839.
- Eurygaster maurus*, notes, *Rec. XII*, 664.
- Eurypelma heutzii*, notes, *Rec. X*, 1067.
- Euschistus*—
politus, notes, *Rec. IX*, 675.
variolarius, notes, *Rec. IV*, 839; *VIII*, 998; *XI*, 472.
- Eustachys, revision of genera, *Rec. X*, 518.
- Eustichia norvegica* fruiting in Wisconsin, *Rec. VI*, 487.
- Eustrotia caduca*, notes, *Rec. II*, 746.
- Eutettix*—
slossoni, n. sp., notes, *Rec. VI*, 564.
southwicki, n. sp., notes, *Rec. VI*, 564.
- Eutolype grandis*, notes, *Rec. X*, 770.
- Eutypella prunastri*, notes, *Rec. XII*, 654.
- Euranessa antiopa*. (See VANESSA ANTIOPA.)
- Euzophera semifuneralis*, notes, *Rec. III*, 657.
- Evaporation, *Rec. VIII*, 111.
- Evaporation—
and plant transpiration, *Rec. X*, 721.
temperature, *Rec. X*, 325.
apparatus, for, *Rec. VI*, 15.
as affected by temperature, *Rec. VII*, 374.
at different heights, *Rec. III*, 799.
Fort Collins, Colo., *Rec. IX*, 424.
formula for calculating, *Rec. II*, 394.
from fruit trees, *Rec. X*, 152.
water surfaces, *Rec. IV*, 369.
influence of plant cover, *Rec. VI*, 199.
in river basins of Russia, *Rec. X*, 327.
the climate of Montpellier, *Rec. IX*, 1032.
observations, *Rec. II*, 394; *III*, 29; *X*, 1019.
of fruit, *Rec. X*, 354; *XI*, 452.
of soil water as affected by—
spring plowing, *Rec. IV*, 122.
surface tillage, *Rec. IV*, 124.
studies, *Rec. VII*, 570; *IX*, 1040.
- Evaporators for fruit preservation, *Rec. IX*, 755.
- Evaporimeter, description, *Rec. IX*, 533.
- Evashmeadea, notes, *Rec. V*, 741.
- Evening—
character, *Rec. X*, 419.
primrose—
analyses, *Rec. III*, 629.
notes, *Rec. III*, 598; *V*, 398, 399.
root system, *Rec. IV*, 46.
- Evergestis rimosalis*, notes, *Rec. IV*, 254; *V*, 685.
- Evergreen—
and periodically deciduous trees of Java, *Rec. X*, 644.
leaves—
starch content in winter, *Rec. XI*, 910.
transpiration, *Rec. XII*, 313.
- Evergreen—Continued.
new, *Rec. XI*, 938.
pest from the Noctuidæ, *Rec. VIII*, 712.
plants, physiology and anatomy, *Rec. VIII*, 290.
trees—
hardy, in New England, *Rec. XI*, 747.
transpiration in winter, *Rec. XI*, 910.
varieties, *Bul. 2, II*, 91; *Rec. III*, 404.
- Evergreens—
adapted to Pennsylvania, *Rec. V*, 54; *VI*, 730.
and shrubs, notes, *Rec. VII*, 133.
foreign, adapted to Swedish parks, *Rec. IX*, 651.
for shelter belts, *Rec. VI*, 994.
grafting, *Rec. VII*, 505.
in Sweden, *Rec. IX*, 651.
list, *Rec. II*, 70; *III*, 404.
notes, *Rec. II*, 512.
propagation from seed, *Rec. III*, 229.
species planted, *Rec. V*, 54.
value for forest planting, *Rec. IX*, 844.
varieties, *Bul. 2, II*, 91; *Rec. I*, 20, 315.
- Everlasting grass—
Mexican, notes, *Rec. VI*, 94.
notes, *Rec. VI*, 94; *X*, 343.
- Evolution of plants, *Rec. VI*, 874; *VII*, 657; *VIII*, 565; *XI*, 318.
- Erotomys*—
caurinus, n. sp., notes, *Rec. IX*, 1031.
gapperi brevicaudus, notes, *Rec. III*, 184.
idahocensis, n. sp., notes, *Rec. III*, 184.
sp., notes, *Rec. II*, 258.
- Ewes. (See SHEEP.)
- Exartema*—
fasciata, notes, *Rec. XI*, 952.
permundana, notes, *Rec. IV*, 839; *XI*, 952.
- Excelsior—
and straw for bedding, *Rec. VII*, 579.
feed, analyses, *Rec. V*, 66; *VI*, 331.
waste—
analysis, *Rec. VI*, 287.
and straw as litter, *Rec. VII*, 73.
v. straw for bedding, *Rec. VIII*, 308.
- Excreta, human—
management, *Rec. VIII*, 116.
sterilization, *Rec. IX*, 35, 740.
- Exercise, effect—
on egg production, *Rec. X*, 77; *XI*, 481; *XII*, 674.
excretion of water vapor through the lungs, *Rec. X*, 481.
milk production, *Rec. VIII*, 254; *X*, 85.
- Exoascaceæ, recent investigations, *Rec. VII*, 276.
- Exoascææ—
n. sp., notes, *Rec. VI*, 233.
of stone fruits, *Rec. VI*, 436.
parasitic, *Rec. VII*, 656; *VIII*, 108.
sprouts and leaves deformed by, *Rec. VI*, 311.
- Exoascus*—
australis, notes, *Rec. VI*, 233.
cccidomophilus, notes, *Rec. VI*, 233, 555.
- cerasi*—
as a cause of witches' brooms on cherry trees, *Rec. IX*, 56.
notes, *Rec. VIII*, 898; *X*, 260.
communis, notes, *Rec. VI*, 555.

Exoascus—Continued.

- confusus*, notes, **Rec. VI**, 233, 555.
deformans. (See PEACH LEAF CURL.)
decipiens, notes, **Rec. VI**, 233, 555.
decipiens superficialis, notes, **Rec. VI**, 233, 555.
farlowii, notes, **Rec. VI**, 555.
insultiva, notes, **Rec. VI**, 555.
longipes, notes, **Rec. VI**, 233, 555.
mirabilis—
 as a cause of leaf curl of Japanese plums,
 Rec. VIII, 411.
 notes, **Rec. VI**, 233, 555.
mirabilis tortilis, notes, **Rec. VI**, 233, 555.
pruni, notes, **Rec. V**, 194; **VI**, 555; **VIII**, 898;
 XI, 246.
rhizipes, notes, **Rec. VI**, 233, 555.
varius, notes, **Rec. VI**, 233, 555.

Exoascus, notes, **Rec. IX**, 363.

Exobasidia, cultures, **Rec. VII**, 787.

Exobasidium—

- brevieri*, n. sp., description, **Rec. XII**, 1057.
peckii, notes, **Rec. IX**, 56; **X**, 260.
symploci, notes, **Rec. X**, 121.
rezans, notes, **Rec. X**, 971.
vitis—

- notes, **Rec. IX**, 363; **X**, 59, 456.
 scald of grape leaves by, **Rec. VI**, 230.

Exobasidium, notes, **Rec. V**, 450; **VI**, 827; **IX**, 363.

Exochomus—

- nigromaculatus*, introduction into New South
 Wales, **Rec. XI**, 760.

pilatei, notes, **Rec. VI**, 741.

Exomalopsis solani, notes, **Rec. VII**, 594.

Exorista—

- heterusia*, notes, **Rec. XI**, 958; **XII**, 770.
leucanie, notes, **Bul. 2**, II, 94.
pyste, notes, **Rec. XII**, 363.

Exosporium palmivorum, notes, **Rec. X**, 653.

Experiment, conception and methods of procedure, **Rec. IX**, 319.

Experiment station—

- agricultural-chemical, at Tabor, Bohemia,
 report, **Rec. VIII**, 26.
 and botanic garden, establishment in Kongo
 Free State, **Rec. XI**, 1000.
 laboratories of Hawaii, **Rec. VII**, 746.
 school for dairying at Kleinhof-Tapiau,
 Rec. VII, 718; **IX**, 291; **X**, 384.

at Albano, report of—

- chemical department, **Rec. XII**, 1008.
 horticultural department, **Rec. IX**, 1054.

at Asti, Italy, **Rec. IV**, 236.

- Bernburg, Germany, **Rec. V**, 749, 865.
 Bonn, Germany, reports, **Rec. III**, 256, 751.
 Breda, **Rec. V**, 671.
 Bremen, Germany, report, **Rec. III**, 257.
 Breslau, Germany, report, **Rec. III**, 257.
 Brunswick, Germany, report, **Rec. III**, 656;
 VIII, 736.

Chojnowo, Poland, **Rec. XI**, 299.

Christiania, Norway, **Rec. V**, 537.

Dahme, Germany, report, **Rec. IV**, 224.

Danzig, Germany, report, **Rec. III**, 258.

Darmstadt, Germany, **Rec. V**, 131, 261; **VII**,
 3, 631.

Darmstadt, Germany, report, **Rec. III**, 70,
 275, 929, 933; **V**, 131.

Experiment station—Continued.

at Eldena, Germany, report, **Rec. III**, 258.

Florence, Italy, **Rec. IV**, 235, 237.

Forli, Italy, **Rec. IV**, 236.

Geisenheim, Germany, report, **Rec. III**, 259.

Gembloux, Belgium, **Rec. V**, 550.

Gembloux, Belgium, report, **Rec. VII**, 341,
 397; **VIII**, 443, 512.

Ghent, Belgium, **Rec. V**, 551.

Göttingen, Germany—

- history, **Rec. III**, 1.
 report, **Rec. III**, 259.
 work, **Rec. III**, 210.

Grignon, France, investigations, **Rec. V**, 3.

Groningen, Holland, **Rec. V**, 671.

Halle, Germany, **Rec. V**, 359, 363, 364, 455,
 457; **VII**, 165, 364, 653.

Halle, Germany—

- description of methods, **Rec. VII**, 653.
 feeding experiments, **Rec. III**, 507, 509,
 557.
 reports, **Rec. II**, 759; **III**, 260; **VII**, 341,
 364.
 work, **Rec. III**, 209.

Hildesheim, Germany, report, **Rec. III**,
 260.

Hohenheim, Germany—

- report, **Rec. III**, 266; **VII**, 198.
 report on feeding stuffs, **Rec. V**, 927.

Hoorn, Holland, **Rec. V**, 671.

Insterburg, Germany, report, **Rec. III**, 260.

Kiel, Germany, reports, **Rec. III**, 260; **V**,
 353; **VIII**, 529; **XII**, 198.

Königsberg, Germany, **Rec. V**, 131.

Königsberg, Germany, reports, **Rec. III**,
 262; **V**, 131.

Laon, France, report, **Rec. V**, 931.

Lodi, Italy, **Rec. IV**, 236.

Magdeburg, Germany, **Rec. V**, 364.

Marburg, Germany, report, **Rec. III**, 263;
 VIII, 1034.

Modena, Italy, **Rec. IV**, 234.

Münster, Germany, report, **Rec. III**, 263,
 656.

Neuhaus, for potato culture, report, **Rec.**
 VIII, 975.

Padua, Italy, **Rec. IV**, 237.

Palermo, Italy, **Rec. IV**, 235.

Pavia, Italy, **Rec. IV**, 237.

Ploti, Russia, reports, **Rec. XI**, 197.

Poltava, Russia, report, **Rec. X**, 798.

Poppelsdorf, Germany, report, **Rec. III**,
 263.

Posen, Germany, **Rec. III**, 263; **VI**, 943;
 VII, 631; **VIII**, 353, 443, 736.

Proskau, Germany, report, **Rec. III**, 264.

Regenwalde, Germany, report, **Rec. III**,
 264; **IV**, 989.

Riga, Russia, report, **Rec. II**, 622.

Rome, Italy, **Rec. IV**, 235, 238.

Rostock, Germany, report, **Rec. III**, 265;
 V, 657.

Rothamsted, England—

- history, **Rec. III**, 895; **VIII**, 837.
 influence, **Rec. XII**, 203.
 report, **Rec. XI**, 842; **XII**, 746.

Spalato, Austria, report, **Rec. XI**, 198.

Experiment station—Continued.

- at Tabor, Austria, report, *Rec. VIII*, 26.
- Turin, Italy, *Rec. IV*, 234.
- Undine, Italy, *Rec. IV*, 236.
- Vyatka, Russia, report, *Rec. X*, 898.
- Wageningen, Holland, *Rec. V*, 670.
- Wiesbaden, Germany, report, *Rec. III*, 265.
- bulletins, *Rec. VII*, 433; *VIII*, 92; *IX*, 1098.
- bulletins, postal regulations, *Rec. II*, 84, 261.
- enterprise, *Bul. 2, I*, 16.
- equipment, *Rec. II*, 502.
- exhibit at—
 - the Paris Exposition, *Rec. XI*, 601.
 - World's Columbian Exposition, *Rec. II*, 266.
- farms—
 - European policy regarding, *Rec. II*, 542.
 - function of, *Rec. II*, 541.
 - in Germany, *Rec. XII*, 901.
- for cheese making at Lodi, Italy, report, 1898, *Rec. XII*, 91.
- entomology, *Rec. IV*, 237; *XI*, 66, 475; *XII*, 271.
- flax culture in Austria, *Rec. V*, 353; *VII*, 299.
- forestry, *Rec. V*, 351; *VI*, 427, 731, 821; *XI*, 457, 747; *XII*, 954.
- milling, *Rec. XI*, 299.
- plant culture at Dresden, Germany, *Rec. III*, 208.
- pomology at Gratz, Austria, report, *Rec. XI*, 157.
- repression of nematodes at Halle, Germany, report, *Rec. III*, 656.
- soil observations, *Rec. V*, 832.
- trials of machinery and tools, *Rec. V*, 932.
- funds, legal disposition, *Rec. II*, 41.
- in Alaska, *Rec. X*, 701.
- Bessarabia, for wine making, report, *Rec. X*, 396.
- Brussels, report, *Rec. XI*, 497.
- East Java, report, 1894, *Rec. VI*, 347.
- Department of l'Aisne, France, report, *Rec. VIII*, 92.
- German East Africa, *Rec. VIII*, 1.
- Hawaii, *Rec. XII*, 2, 1001.
- Island of Mauritius, report, *Rec. VIII*, 353; *IX*, 1098.
- Johannesburg, *Rec. VIII*, 938.
- Porto Rico, *Rec. XII*, 2.
- literature, proposed index, *Rec. II*, 266.
- movement in Russia, *Rec. X*, 601.
- publications, *Rec. I*, 310.
- publications—
 - character, *Rec. III*, 140.
 - subject list of abstracts, *Rec. II*, 390.
- Record—
 - changes in arrangement, *Rec. IV*, 1; *VI*, 1.
 - contents of Vol. IV, *Rec. IV*, 881.
 - editorial management, *Rec. XI*, 2.
 - scope of, *Rec. II*, 313, 609.
- records, *Rec. II*, 269.
- work, *Rec. V*, 415.
- work—
 - handbook, *Rec. V*, 518.
 - in the Southern States, *Rec. III*, 841.
 - limitations, *Rec. VII*, 435.

Experiment station—Continued.

- work—continued.
 - permanent elements in, *Rec. VII*, 174, *VIII*, 537; *IX*, 298.
 - practical value, *Rec. XI*, 898.
 - skilled labor for, *Rec. II*, 419.
 - specialization, *Rec. VII*, 633.
- Experiment stations—
 - aid of the press in disseminating work of, *Rec. II*, 419.
 - American, work of, *Rec. VI*, 849.
 - and agricultural schools, European, *Rec. VI*, 849.
 - colleges, teachers, and investigators in, *Rec. V*, 274.
 - the florist trade, *Rec. VIII*, 409.
- appropriations for, *Rec. II*, 471.
- connections with educational institutions, *Rec. II*, 545.
- cooperation with farmers' organizations, *Rec. VII*, 433.
- establishment in—
 - Brazil, *Rec. III*, 660.
 - Holland, *Rec. VII*, 259.
- European, *Rec. VIII*, 355.
- exhibits at Paris Exposition, *Rec. XII*, 301.
- expenditures, supervision by Department of Agriculture, *Rec. VI*, 175.
- for Hawaii and Porto Rico, *Rec. XII*, 2.
- poultry culture, *Rec. XI*, 484.
- in Austria, statistics, *Rec. II*, 385.
- Belgium, *Rec. V*, 550, 551, 552.
- Belgium, reports, *Rec. III*, 502.
- Brazil, *Rec. III*, 362.
- Denmark, *Rec. IX*, 717.
- Denmark, reports, *Rec. XII*, 398.
- Finland, *Rec. IX*, 719.
- foreign countries, list, *Rec. XI*, 98; *XII*, 198.
- France, Government supervision, *Rec. VI*, 175.
- French tropical colonies, *Rec. XII*, 199.
- Germany, *Rec. I*, 175; *V*, 364, 441.
- Germany—
 - aims and tendencies, *Rec. IX*, 103, 207.
 - at the Paris Exposition, *Rec. XI*, 506.
 - conditions and needs, *Rec. XI*, 506.
 - convention, *Rec. II*, 522; *III*, 208, 499; *IV*, 520, 979; *VI*, 9; *VII*, 12; *VIII*, 447, 462; *X*, 817; *XI*, 505.
- Holland, *Rec. V*, 669, 672.
- Holland—
 - location and directors, *Rec. V*, 675.
 - statistics, *Rec. II*, 700.
- Italy, *Rec. IV*, 234.
- Japan, *Rec. V*, 361; *X*, 101.
- Java, statistics, *Rec. III*, 278.
- Norway, *Rec. IX*, 712.
- Portugal, *Rec. IV*, 325.
- Prussia, report for 1891, *Rec. IV*, 224.
- Roumania, *Rec. IV*, 325.
- Russia, *Rec. V*, 656, 827; *IX*, 599; *X*, 603; *XI*, 98.
- Sweden, *Rec. IX*, 713.
- Sweden, work during 1891, *Rec. IV*, 777.
- the United States, *Rec. V*, 1006; *VII*, 1; *XII*, 497.

Experiment stations—Continued.
in the United States—

Austrian view of, *Rec. II*, 139.
foreign view, *Rec. III*, 833.
history and present status, *Rec. XII*, 297.
organization lists, *Rec. XII*, 198.
statistics, *Rec. I*, 117; *II*, 309, 471; *III*, 439;
IX, 701, 1099; *X*, 1001; *XI*, 397, 801; *XII*,
298.
work and expenditures, *Rec. VIII*, 539;
IX, 298, 1098; *XI*, 98; *XII*, 697.

International Congress—

at Paris, *Rec. III*, 660; *XII*, 101.
report, *Rec. III*, 660.

international cooperation in methods, *Rec.*
XI, 310.

irrigation work, *Rec. XI*, 195.

meteorological work for, *Rec. III*, 585.

need of—

more perfect organization, *Rec. XII*, 401.
specialists, *Rec. II*, 625.

object and—

purpose, *Rec. XI*, 401.
work, *Rec. VII*, 432.

Office of, *Rec. IV*, 582, 954.

Office of—

changes in organization, *Rec. V*, 1.
publications, *Bul. 2, I*, 16.
work of, *Rec. II*, 266.

of the world, *Rec. IV*, 451.

organization of, *Rec. II*, 309.

publications of, *Rec. II*, 309.

summary of annual reports, *Bul. 2, I*, 15.

variety tests by, *Rec. VIII*, 353.

veterinary work, *Rec. XII*, 601.

work, *Rec. IV*, 397; *VI*, 849; *VII*, 433; *XI*, 802.

Experimental farms in New South Wales, *Rec.*
XII, 199.

Experimental Gardens, East Java, report, 1892-93,
Rec. VI, 347.

Experts in soil investigations, need of courses of
instruction for, *Rec. VI*, 759.

Explosive noises at Franklinville, *Rec. IX*, 531.

Exports—

agricultural. (*See AGRICULTURAL EXPORTS.*)

and harvests, relation between, *Rec. V*, 798.

of corn, *Rec. IV*, 282.

gold, *Rec. V*, 798.

merchandise, *Rec. V*, 798.

Extract in wine, determination, *Rec. IV*, 984;
VI, 613.

Extractor—

butter. (*See BUTTER EXTRACTORS.*)

for analytical work, *Rec. V*, 433.

separators, tests, *Rec. IV*, 751; *V*, 1057; *VI*,
246.

Exyra rolandiana, notes, *Rec. VI*, 1008.

Eye disease—

as affected by illumination of stables, *Rec.*
XI, 893.

contagious in cattle, *Bul. 2, I*, 111.

Eye diseases of domestic animals, *Rec. V*, 78.

Eye-spotted bud moth, notes, *Bul. 2, II*, 58.

Eyed elator, notes, *Bul. 2, II*, 58.

Eyes of domestic animals, parasites in, *Rec.*
V, 79.

Faba vulgaris, as affected by carbon dioxid, *Rec.*
XII, 110.

Faculty meetings, *Rec. VII*, 433.

Fagopyrum—

esculentum, notes, *Rec. VI*, 294.

esculentum aptera, analyses, *Rec. XI*, 724.

spp., effect on milk, *Rec. V*, 970.

(*See also BUCKWHEAT.*)

Fagus—

atropunica, notes, *Rec. VIII*, 231.

ferruginea, notes, *Rec. IV*, 654; *VII*, 135; *VIII*,
231.

sylvatica, notes, *Rec. IV*, 654.

(*See also BEECH.*)

Fairs, agricultural, how to exhibit at, *Rec. VI*, 300.

Fake storms, *Rec. IX*, 531.

Falco—

subbutes, notes, *Rec. IX*, 96.

tinnunculus, notes, *Rec. IX*, 530.

Falconidae, feeding habits, *Rec. XI*, 425.

Fallow—

bare, *Rec. VII*, 938.

soils, drainage water of, *Rec. IV*, 295.

Fallowing—

effect on—

production of nitrates in the soil, *Rec.*
VIII, 574.

water content of soils, *Rec. IV*, 125.

in Europe, *Rec. VII*, 848.

Famines and droughts in India, *Rec. VI*, 973;
XII, 521.

Fancy Feed Meal, analyses, *Rec. XII*, 282.

Farcy, Japanese, *Rec. IX*, 495.

(*See also GLANDERS.*)

Farina, analyses, *Rec. IV*, 59; *VII*, 336.

Farm—

accounts, methods of keeping, *Rec. V*, 656;
XI, 698.

animals—

compounding rations for, *Bul. 2, II*, 57;
Rec. IX, 276; *X*, 480.

cotton seed for, *Rec. VII*, 337.

feeding, *Rec. V*, 823; *VI*, 842, 931; *VII*, 337,
415, 522; *VIII*, 331; *IX*, 175, 786; *X*, 583.

in Denmark, statistics, *Rec. VII*, 812;
VIII, 226; *XI*, 999.

the United States, statistics, *Rec. VII*,
73; *VIII*, 193, 442.

inbreeding, *Rec. VI*, 574.

manual, *Rec. XI*, 80.

molasses for, *Rec. VII*, 63, 522; *XI*, 778,
999.

number and value in United States, *Rec.*
VI, 943.

of the world, *Rec. IV*, 956.

productivity, as affected by temperature
of stable, *Rec. X*, 184.

recent losses, *Rec. XI*, 397.

statistics, *Rec. II*, 518, 673; *III*, 632; *IV*,
850; *V*, 798, 1088; *VI*, 943; *XI*, 998.

sugar-beet diffusion, residue for, *Rec. IV*,
986.

bookkeeping, *Rec. VII*, 259.

buildings, *Rec. IX*, 396.

buildings—

at Massachusetts College, description,
Rec. VI, 674.

construction and arrangement, *Rec. VIII*,
636.

notes, *Rec. II*, 13.

Farm—Continued.

- buildings—continued.
 - protection against lightning, *Rec. VI*, 196; *X*, 797.
 - sanitation, *Rec. IX*, 393; *X*, 696.

crops—

- cost of growing, *Rec. V*, 575; *VII*, 210; *XI*, 43.
- diseases, *Rec. IV*, 956.
- fertilizer experiments, *Rec. X*, 42.
- in Ontario, condition, *Rec. VI*, 217, 419.
- insects affecting, *Rec. V*, 63.
- manual, *Rec. IX*, 349.
- protecting from insects and fungi, *Rec. XI*, 959.
- statistics, *Rec. VIII*, 442.
- yield and value, *Rec. II*, 587, 608.

drainage, *Rec. VIII*, 351, 442; *X*, 1097.

exodus from, *Rec. VIII*, 550; *IX*, 297.

fences, notes, *Rec. V*, 1034.

implements—

- at Paris Exposition, *Rec. XII*, 1097.
- descriptions, *Rec. III*, 516.
- exhibit in England, *Rec. V*, 350.
- improvements, *Rec. XII*, 398.
- testing station at Paris, *Rec. V*, 131; *XII*, 398.
- tests, *Rec. III*, 435; *V*, 796, 932, 1102; *VI*, 252, 485, 942; *VII*, 257, 432, 531; *VIII*, 352; *X*, 599, 1097; *XI*, 96, 97, 335.

improvements and machinery, value, *Rec. VI*, 755.

labor—

- and wages in Ontario, *Rec. VI*, 217, 419.
- distribution and effectiveness, *Rec. II*, 673.
- wages in Denmark, *Rec. V*, 657.
- wages in the United States, *Rec. III*, 906.

lands—

- improvement, *Rec. II*, 56; *III*, 157.
- in Minnesota, decline, *Rec. IV*, 132.
- value, *Rec. VI*, 755.

machinery. (*See* MACHINERY, AGRICULTURAL.)

management—

- notes, *Rec. V*, 870, 871; *XII*, 698.
- in England, *Rec. VII*, 341.

manure. (*See* BARNYARD MANURE.)

manuring, principles, *Rec. IV*, 248.

ownership and tenancy in United States, *Rec. IX*, 899.

pests, *Rec. VI*, 315.

plants, box culture, *Rec. II*, 125.

practice to control insects, *Rec. IV*, 57.

prices in—

- 1892, *Rec. IV*, 578.
- two centuries, *Rec. IV*, 429.

produce, marketing, *Rec. IX*, 899.

products—

- analyses, *Rec. IV*, 246.
- prices, *Rec. III*, 543; *IV*, 282.
- protection, during transportation, *Rec. VI*, 419, 573.
- value, *Rec. VI*, 755.

resources, *Rec. IV*, 275.

superintendence, notes, *Rec. XII*, 379.

superintendent, report, *Rec. IX*, 499; *XI*, 642.

Farmer—

- and expansion, *Rec. XI*, 397.
- in his business relations, *Rec. XII*, 199.

Farmers—

- agricultural education for, *Rec. III*, 132.
- and dairymen, handbook for, *Rec. VIII*, 933.
- fruit-growers' guide, *Rec. IX*, 298; *XI*, 45.
- meteorology, *Rec. VII*, 474.

books for, *Rec. XI*, 999.

bulletins, *Rec. II*, 2; *XII*, 118.

forestry for, *Rec. VII*, 508; *IX*, 844.

institutes, *Rec. VII*, 635.

institutes—

- in California, *Rec. X*, 298.
- Michigan, *Rec. IX*, 398.
- Ohio, *Rec. IX*, 699.
- Ontario, *Rec. V*, 133; *IX*, 799; *XI*, 198.
- Pennsylvania, *Rec. IX*, 499, 799.
- Quebec, *Rec. II*, 5.
- the United States and Canada, *Rec. XII*, 298.
- Washington, *Rec. III*, 807; *IV*, 275.
- Wisconsin, *Rec. XI*, 296.
- lectures at, *Rec. XII*, 119.
- notes, *Rec. XII*, 39.

interest in finance, *Rec. IX*, 296.

meetings, *Rec. VII*, 587.

of lower Hesse, indebtedness, *Rec. VI*, 1030.

organizations, constitutions and by-laws, *Rec. X*, 599.

reading courses, *Rec. XI*, 999.

veterinary materia medica for, *Rec. VII*, 526; *VIII*, 159.

Farming—

- by different methods, effect on fertility of the soil, *Rec. VII*, 476.
- electricity. (*See* ELECTRICITY.)
- diversified, in Oklahoma, *Rec. XII*, 640.
- experimental, in Utah, *Rec. V*, 1104; *VI*, 87.
- in East Anglia, statistics, *Rec. VI*, 486.
- North Carolina, *Rec. XI*, 497.
- profitableness of an extensive and an intensive system, *Rec. VIII*, 308.
- with and without stock, *Rec. VI*, 202.

Farms—

- and farmers, English, *Rec. XI*, 497.
- as affected by—
 - forests, *Rec. VIII*, 604, 794.
 - local taxation, *Rec. IX*, 296.
- electric plants on, *Rec. VI*, 252.
- Danish, description, *Rec. V*, 609.
- in the United States, *Rec. V*, 1088.
- motive power, *Rec. IX*, 396.
- of Norway, statistics, *Rec. IX*, 398.
- Russian, description, *Rec. X*, 198.
- statistics, *Rec. VI*, 755; *VII*, 73.
- typical, in Cheshire and North Wales, *Rec. V*, 350.
- water supply, *Rec. X*, 730.

Fasciation, investigations, *Rec. VI*, 279.

Fasciola americana, notes, *Rec. III*, 502.

Fasting—

- effect on animal heat, *Rec. XII*, 981.
- in hypnotic sleep, effect on metabolism, *Rec. IX*, 480.

Fat—

- absorption, *Rec. VII*, 336; *XI*, 883.
- an index of value of milk for cheese. (*See* CHEESE MAKING.)
- and casein in infant feces, determination, *Rec. IX*, 917; *X*, 515.
- and starch—
 - in animal metabolism, *Rec. VII*, 336; *VIII*, 321, 616.
 - influence upon digestibility of food, *Rec. VII*, 336; *VIII*, 321, 616.
- animal, determination, *Rec. VIII*, 667; *X*, 20.
- as a conservator of albuminoids, *Rec. V*, 130.
- beef, in lard, estimation, *Rec. V*, 728.
- changes in, during germination, *Rec. VIII*, 566.
- compounds in feeding stuffs, *Rec. V*, 337.
- content of milk, comparison of tests. (*See* MILK TESTS.)
- crude, in East India rape seed, *Rec. V*, 1022.
- decomposition—
 - by molds, *Rec. VIII*, 515.
 - in cheese ripening, *Rec. X*, 789.
- determination, *Rec. V*, 647; *IX*, 224, 917, 1020; *X*, 920.
 - (*See also* FEEDING STUFFS, MILK, CHEESE, etc.)
- determination—
 - apparatus, *Rec. I*, 288.
 - by ether, *Rec. II*, 488.
 - Gerber method, possible error, *Rec. XI*, 813.
 - for selecting cows, *Rec. V*, 1033, 1065.
 - (*See also* Cows.)
 - in animal body, *Rec. IX*, 373.
 - animal organs, *Rec. VII*, 425.
 - animal substances, *Rec. IX*, 618.
 - bread, *Rec. IV*, 221, 389; *V*, 439, 520, 647.
 - butter, *Rec. VI*, 108, 272; *VII*, 918; *X*, 90; *XII*, 108.
 - butter substitutes, *Rec. VII*, 918.
 - cheese, *Rec. IV*, 116; *V*, 511, 1027; *VI*, 11, 15, 109, 673; *IX*, 521; *X*, 90, 188.
 - coffee, *Rec. VII*, 616.
 - compound lards, *Rec. VIII*, 861.
 - condensed milk, *Rec. XI*, 1100; *XII*, 307, 823.
 - cream, *Rec. II*, 242, 631; *VI*, 185; *IX*, 285; *X*, 90, 91; *XI*, 812; *XII*, 485.
 - curdled milk, *Rec. VI*, 189.
 - dairy products, *Rec. IV*, 289; *XII*, 21.
 - feces, *Rec. IV*, 70; *IX*, 917; *X*, 310, 311.
 - feeding stuffs, *Rec. II*, 523; *III*, 516, 615, 632; *V*, 460; *X*, 310.
 - feeding stuffs as affected by quality of ether, *Rec. X*, 820.
 - feeding stuffs, solvent for, *Rec. II*, 488.
 - liquids, apparatus for, *Rec. VI*, 111.
 - meat, *Rec. VII*, 919; *VIII*, 713; *X*, 310, 311, 608; *XI*, 21.
 - milk, *Bul. 2*, *I*, 212; *Rec. V*, 656; *VI*, 15, 271, 611, 612, 619, 868, 936; *VII*, 161, 254, 256, 462, 807, 920; *IX*, 183, 379, 419, 494; *X*, 413, 821; *XI*, 213, 311, 419, 510, 904; *XII*, 22, 1007.
 - milk and butter, *Rec. XI*, 905.
 - milk, volumetric, *Rec. VII*, 742.
 - pasteurized milk, *Rec. VII*, 71, 255, 556.

Fat—Continued.

- determination—continued.
 - in separator cream, *Rec. IX*, 224, 285.
 - skim milk, *Rec. VIII*, 932; *IX*, 589.
 - vegetable substance, apparatus for, *Rec. II*, 70.
- purification of extract, *Rec. III*, 516.
- saponification method, *Rec. X*, 311.
- digestibility, *Rec. X*, 877; *XII*, 1077.
- digestibility and absorption as affected by removal of pancreas, *Rec. IX*, 1079.
- digestible in dry beech leaves, *Rec. V*, 916.
- effect—
 - of large quantities on stomach motility, *Rec. XII*, 177.
 - on albuminoids of the food, *Rec. VI*, 1012.
 - digestibility of food, *Rec. VII*, 336; *VIII*, 321, 616; *IX*, 576.
- examination, *Rec. VI*, 15, 272; *VII*, 273.
- examination—
 - in cheese, *Rec. VII*, 555.
 - with refractometer, *Rec. VII*, 919.
- extraction, *Rec. V*, 801.
- extraction—
 - and fat calculation in milk analysis, *Rec. III*, 654.
 - apparatus, *Rec. III*, 654; *IV*, 613; *V*, 127, 386, 1027; *VI*, 776; *VII*, 18, 272, 273, 266, 653; *VIII*, 286; *IX*, 26, 494, 620, 808, 919; *X*, 20, 21, 717; *XI*, 23, 214, 511; *XII*, 309, 908.
 - apparatus, Knorr's, *Rec. VI*, 504.
 - apparatus, Soxhlet, modification, *Rec. IV*, 870; *VII*, 272.
 - apparatus, Tollens', *Rec. VI*, 376.
 - by carbon bisulphid, *Rec. XII*, 308.
 - methods, *Rec. IV*, 854.
 - use of incandescant lamps, *Rec. XI*, 420.
- extractor for analytical work, *Rec. V*, 433.
- formation—
 - by intensive feeding of fat, *Rec. XI*, 674.
 - from albuminoids, *Rec. VI*, 1013.
 - carbohydrates, *Rec. VI*, 72.
 - protein, *Rec. IX*, 480; *X*, 80; *XI*, 483, 883.
 - in animal body, *Rec. VIII*, 71, 179; *IX*, 175, 275; *XI*, 1076; *XII*, 981.
 - body in phosphorus poisoning, *Rec. X*, 80.
 - cheese ripening, *Rec. IV*, 988; *V*, 247, 1062.
 - seeds and fruits, *Rec. IX*, 725.
- free meat, preparation, *Rec. X*, 81.
- globules—
 - as affected by freezing, *Rec. XI*, 886.
 - condition in milk and cream, *Rec. XI*, 1100.
 - constitution, *Rec. IX*, 102.
 - in butter, *Rec. V*, 1022.
 - cream, effect of size on churnability, *Rec. X*, 88.
 - milk, *Bul. 2*, *II*, 107; *Rec. II*, 267; *III*, 23; *VII*, 255; *VIII*, 161, 337, 826; *IX*, 176.
 - milk from different breeds, *Rec. V*, 655.
 - milk, movement in cream-raising, *Rec. V*, 1054.
 - milk, studies, *Rec. XI*, 186.

—Continued.

- human, composition, *Rec. VIII*, 199.
- importance in—
 - animal nutrition, *Rec. V*, 258, 337, 438.
 - nutrition, *Rec. IV*, 986.
- in animal metabolism, *Rec. VII*, 336; *VIII*, 321, 616.
- butter, studies, *Rec. III*, 832; *IV*, 93; *XI*, 284, 308; *XII*, 880.
- centrifugal skim milk, *Rec. V*, 655.
- centrifugal skim-milk cheese, *Rec. VI*, 484.
- cheese, *Rec. V*, 1060.
- cheese, from different animals, *Rec. VII*, 526.
- corn meal, *Rec. VII*, 17.
- diet of dogs, *Rec. XI*, 276.
- feeding stuffs—
 - iodin number, *Rec. V*, 461.
 - methods of investigation, *Rec. II*, 614.
 - nature, *Rec. V*, 258.
- fertilizers, rôle, *Rec. VIII*, 484.
- firm and soft pork, analyses, *Rec. XII*, 581.
- food, *Rec. VII*, 17.
- in food—
 - transmission to milk, *Rec. IX*, 795.
 - utilization for muscular energy, *Rec. VIII*, 156.
- in meat, removal by mechanical means, *Rec. VII*, 919.
- in milk—
 - abnormal content of, *Rec. V*, 824.
 - as a basis for payment, *Rec. V*, 440, 1063.
- in milk as affected by—
 - fat in rations, *Rec. XI*, 484, 975.
 - feeding stuffs, iodin number, *Rec. V*, 461.
 - food, *Rec. III*, 219, 262, 367; *V*, 440, 640, 824; *VI*, 461, 462; *VII*, 705, 979; *VIII*, 86, 256; *IX*, 633; *X*, 86; *XI*, 184, 1081.
 - frequency of milking, *Rec. IX*, 684.
 - individuality of cows, *Rec. X*, 91.
 - period of lactation, *Rec. V*, 623.
 - quantity of food, *Rec. XI*, 184.
 - turnips, *Rec. IX*, 92.
- in milk—
 - effect on cheese, *Rec. X*, 291.
 - for butter making, *Rec. V*, 1054.
 - from different animals, *Rec. VIII*, 634, 834.
 - Holstein, *Rec. VI*, 454.
 - human, *Rec. VI*, 167, 336.
 - investigations, *Rec. V*, 941.
 - of different breeds, *Rec. V*, 945, 1053.
 - different cows, determination, *Rec. V*, 813.
 - Jersey cows, *Rec. VI*, 296.
 - Kildebond cows, *Rec. IX*, 92, 290.
 - relation to color, *Rec. VI*, 250.
 - source, *Rec. IV*, 257; *VI*, 1011; *IX*, 1083; *X*, 689; *XI*, 284, 973.
 - variation, *Rec. I*, 81; *IV*, 784; *VII*, 630; *XII*, 683.
 - variation during period of lactation, *Rec. VI*, 455.
 - volatile acids, *Rec. VII*, 618.
- in muscular tissues, *Rec. IX*, 681.
- oats, investigation, *Rec. VI*, 965.
- palm nuts, *Rec. VI*, 754.
- rape seed as affected by soil and fertilization, *Rec. XI*, 141.

Fat—Continued.

- in seeds of *Nephtium lappaceum*, *Rec. VII*, 557.
 - sow's milk, *Rec. IX*, 282.
 - sterilized milk, separation, *Rec. VII*, 17.
 - superphosphates, *Rec. X*, 532.
 - the stomach, digestion, *Rec. VI*, 1023.
 - wheat and rye flours, *Rec. VIII*, 196.
 - influence upon—
 - composition of cheese, *Rec. VIII*, 343.
 - yield of cheese, *Rec. VIII*, 342.
 - liquid, for cows, *Rec. XII*, 283.
 - loss in—
 - churning, *Rec. I*, 323; *III*, 765; *V*, 323, 1000.
 - skim milk. (*See CREAM RAISING.*)
 - nutritive value, *Rec. V*, 339.
 - rancid, in commercial feeding stuffs, *Rec. VII*, 519.
 - relation to casein in milk, *Rec. V*, 805; *VII*, 159.
 - resorption, *Rec. VI*, 468; *X*, 877; *XII*, 981.
 - resorption as affected by pancreatic juice, *Rec. IX*, 1079.
 - stock show in Berlin, slaughter experiments, *Rec. VII*, 155.
 - transformation—
 - during germination, *Rec. IX*, 625.
 - into carbohydrates in fasting animals, *Rec. VIII*, 156.
 - glycogen, *Rec. X*, 583; *XI*, 184.
 - v. sugar, food value, *Rec. X*, 70.
 - yield as an aid in breeding cows, *Rec. VIII*, 440.
- Fats—
- analyses, *Rec. III*, 748; *VII*, 257.
 - analysis, *Rec. IX*, 419; *X*, 412.
 - analysis—
 - acetyl value, *Rec. XI*, 811.
 - methods of, *Rec. VII*, 556, 558; *X*, 118; *XII*, 1005, 1007.
 - and oils—
 - adulteration, *Rec. X*, 884.
 - edible, *Rec. X*, 412.
 - iodin number, *Rec. VII*, 460.
 - saponification, *Rec. X*, 118.
 - temperature, *Rec. VI*, 274.
 - vegetable, *Rec. IX*, 696.
 - and waxes, analysis, *Rec. IX*, 419.
 - animal—
 - chemistry, *Rec. IX*, 25, 419.
 - refractive index, *Rec. III*, 929.
 - apparatus—
 - for determining melting point, *Rec. XI*, 419.
 - saponification, *Rec. X*, 821.
 - bromin absorption, *Rec. VI*, 964.
 - calorimetric investigations, *Rec. II*, 459.
 - determination, *Rec. III*, 578.
 - determination—
 - of bromin value, *Rec. VI*, 964; *VII*, 652; *VIII*, 742; *XII*, 419.
 - chlorin in, *Rec. VII*, 18.
 - iodin number, *Rec. IV*, 781; *VII*, 460; *X*, 608; *XII*, 106, 419.
 - melting point, *Rec. XI*, 312.
 - stearic acid in, *Rec. VIII*, 666, 861.
 - feeding to cows, *Rec. VII*, 150; *XII*, 283.
 - foreign, detection in butter, *Rec. IV*, 96, 317; *V*, 109, 1027; *VI*, 868; *VII*, 649; *IX*, 722.

Fats—Continued.

- hot-chamber refractometer for determining, **Rec. VI**, 190.
- in tuberculosis bacilli, **Rec. VII**, 928; **VIII**, 104.
- liquid, analyses, **Rec. IV**, 781.
- mixtures of saponifiable and nonsaponifiable, **Rec. V**, 727.
- rancid, treatment with soda solution, **Rec. XII**, 1007.
- rancidity, **Rec. VI**, 754; **VIII**, 562, 666; **IX**, 419; **XII**, 308.
- saponification, methods, **Rec. V**, 562; **X**, 118, 821.
- technology and analyses, **Rec. III**, 831.
- Fattening**—
 - lambs for British markets, **Rec. VI**, 465.
 - or turning loose in the pasture, **Rec. VIII**, 254.
 - respiration quotient during, **Rec. V**, 1101.
- Fatty acid**, unsaturated, **Rec. III**, 578.
- Fatty acids**—
 - calorimetric investigations, **Rec. II**, 459.
 - determination, **Rec. V**, 727; **VII**, 91; **X**, 515.
 - examination, **Rec. VI**, 272.
 - free in feeding stuffs, determination, **Rec. II**, 684; **V**, 460.
 - free in feeding stuffs, **Rec. VII**, 973.
 - freezing point, **Rec. VI**, 274.
 - in butter, **Rec. IV**, 213.
 - in butter—
 - determination, **Rec. VII**, 273.
 - study, **Rec. XI**, 312.
 - insoluble—
 - determination, **Rec. IV**, 613, 692.
 - in butter, determination, **Rec. VI**, 271.
 - iodin number, **Rec. XI**, 813.
 - oxidation, **Rec. VII**, 91, 557.
 - Reichert-Meisel method, **Rec. IV**, 316, 613, 781, 983; **V**, 104, 126, 922; **VII**, 18; **X**, 515.
 - separation, **Rec. VII**, 652; **IX**, 25.
 - volatile—
 - determination, **Rec. VII**, 17, 186, 460; **VIII**, 199; **IX**, 722.
 - in butter, **Rec. III**, 125; **IV**, 316, 389, 569; **V**, 106, 955, 1101; **IX**, 722; **X**, 919.
 - butter, determination, **Rec. IV**, 389, 663, 664; **V**, 922; **VI**, 271; **VII**, 17, 186, 460; **VIII**, 199; **IX**, 772; **X**, 515, 919.
 - butter, fluctuation, **Rec. VI**, 846; **XI**, 487, 975.
 - rancid butter, **Rec. IV**, 784; **V**, 734, 955; **XI**, 584.
- Fatty matter** in soap, determination, **Rec. IV**, 314.
- Fatty oils**—
 - in lard, detection, **Rec. III**, 654.
 - plants, formation, **Rec. V**, 1027.
- Fatty substances**, analysis, **Rec. VII**, 272.
- Fauna**—
 - changes due to man's agency, **Rec. IX**, 158.
 - lepidopterous—
 - of Canary Islands, **Rec. VIII**, 614.
 - Ottawa, **Rec. VIII**, 614.
 - North American, **Rec. VI**, 787; **VIII**, 960, 961; **IX**, 924.
 - of British India, **Rec. VII**, 20; **IX**, 774.
 - Cuba, **Rec. XI**, 427.
 - Idaho, **Rec. III**, 184.
 - Maryland, **Rec. XII**, 1098.
 - Tres Marias Islands, **Rec. XI**, 428.

Favus—

- notes, **Rec. XII**, 492, 894.
- treatment, **Rec. XII**, 1092.
- Feather blue stem. (*See* FEATHER SEDGE.)
- Feather-bunch grass, analyses, **Rec. VI**, 403.
- Feather crowfoot, notes, **Rec. X**, 343.
- Feather eating among hens, treatment, **Rec. V**, 202.
- Feather felting, **Rec. IV**, 285.
- Feather grass, Abyssinian, culture experiments, **Rec. X**, 244.
- Feather sedge, notes, **Rec. X**, 343.
- "Feathered Gothic" moth in northern France, **Rec. VI**, 563.
- Feathered vermin, **Rec. VIII**, 961.
- Feces**—
 - ash analysis, **Rec. XI**, 1004.
 - chemical composition as affected by different diets, **Rec. IX**, 473.
 - composition—
 - and fuel value, **Rec. XI**, 1076.
 - thermal value, **Rec. XI**, 1006.
 - determination—
 - of fat, **Rec. X**, 310, 311.
 - fat and casein, **Rec. IX**, 917; **X**, 515.
 - flesh, **Rec. IX**, 474.
 - vegetable matter, **Rec. IX**, 473.
 - estimation of cellulose, **Rec. XI**, 661.
 - from milk diet, phosphorus in, **Rec. XII**, 477.
 - Plasmon and meat diet, **Rec. XII**, 379.
 - human, mucus in, **Rec. X**, 281.
 - loss of nitrogen in drying, **Rec. XI**, 1005.
 - method for drying, **Rec. X**, 313.
 - microscopic examination, **Rec. IX**, 480.
 - normal, ash of, **Rec. V**, 732.
 - of milch cows, fertilizing constituents, **Rec. XII**, 927.
 - sheep, heat of combustion, **Rec. XII**, 873.
 - steers, composition, **Rec. IV**, 70.
 - young infants, mineral constituents when fed mother's milk and cow's milk, **Rec. IX**, 982, 1079.
 - separation, **Rec. IX**, 480.
 - study of ferments, **Rec. XII**, 477.
- Fecundation**—
 - and embryology of *Ginkgo biloba*, **Rec. X**, 825.
 - of Lobeliaceæ, Campanulaceæ, and Compositæ, **Rec. X**, 417.
- Feed**—
 - cooking and steaming for animals, **Rec. V**, 540, 825; **VI**, 445.
 - fine, analyses, **Rec. II**, 579.
 - flour, analyses, **Rec. II**, 645; **IV**, 567.
 - ground—
 - adulteration, **Rec. V**, 794; **VII**, 985.
 - analyses, **Rec. II**, 589; **VIII**, 719.
 - meal, analyses, **Rec. VIII**, 810.
 - mills, small steel, grinding experiments, **Rec. XII**, 492.
 - mixed, analyses, **Rec. VIII**, 1004; **IX**, 809; **X**, 276, 428, 474; **XI**, 279, 381, 971.
- Feeding**—
 - and management—
 - of cattle, **Rec. V**, 71.
 - poultry, **Rec. VII**, 249.
 - animals, **Rec. I**, 296.
 - artificial, of trees, **Rec. VII**, 962.
 - by-products, **Rec. VI**, 330.

feeding—Continued.

- cotton-seed products, **Rec. VII**, 581.
- effect of different methods on milk production, **Rec. XII**, 782.
- experiments— (*See also different kinds of animals and of feeds.*)
 - at Halle Station, **Rec. III**, 507, 509, 557; **V**, 359, 375.
 - Rothamsted, England, **Rec. VII**, 415.
 - the North American experiment stations, **Rec. III**, 203.
 - cooperative, in Saxony, Prussia, **Rec. III**, 507, 509, 557.
 - equipments for, **Bul. 2, II**, 78.
 - experimental error in, **Rec. VIII**, 1021; **IX**, 878.
 - individuality in, **Rec. VII**, 177.
 - length of periods in, **Rec. VII**, 178.
 - methods, **Rec. VIII**, 554.
 - milk tests in, **Rec. IV**, 324.
 - number of animals to be used, **Rec. III**, 813.
 - review of, **Rec. IV**, 316.
 - specific compounds bearing on, **Rec. II**, 269.
- farm animals, **Rec. V**, 823; **VI**, 842, 931; **VII**, 337, 415, 522; **VIII**, 331; **IX**, 175, 786; **X**, 583.
- flour, dark, analyses, **Rec. III**, 878.
- for fat and for lean, **Rec. III**, 832.
- fractional, as affecting assimilation, **Rec. V**, 259.
- individual, Kuhn's method, **Rec. IV**, 11.
- modern—
 - effect upon the formation of the skull and dentition of pigs, **Rec. I**, 100.
 - handbook, **Rec. XI**, 483.
- periods—
 - experimental, length, **Rec. IX**, 877.
 - proper length, **Rec. XI**, 382.
- standards, **Rec. IV**, 2, 6, 176, 665, 732, 935; **V**, 195; **VI**, 349; **VII**, 596.
- standards—
 - as related to metabolism of energy, **Rec. X**, 1089.
 - discussion, **Bul. 2, II**, 50, 100, 124; **Rec. II**, 101, 436; **III**, 296, 318, 453.
 - principles, **Rec. XII**, 80.
 - tables, **Rec. I**, 296.
 - use, **Rec. III**, 713; **V**, 195, 207, 499.
 - value to the farmer, **Rec. XI**, 971.
- stock, aim and method, **Rec. V**, 663.

Feeding stuffs— (*See also Foods, and specific kinds.*)

- acid properties, **Rec. VII**, 335.
- adulteration, **Rec. IV**, 211; **V**, 507, 537, 737; **VI**, 522, 569; **IX**, 199; **XI**, 777.
- albuminoid nitrogen in, **Rec. V**, 465.
- analyses, **Bul. 2, I**, 26, 42, 154; **Bul. 2, II**, 45, 50, 124; **Rec. I**, 267, 296; **II**, 57, 601, 645; **III**, 296; **V**, 64, 171, 410; **VI**, 98, 467; **VII**, 954; **VIII**, 426; **IX**, 323; **X**, 79, 115, 474; **XII**, 282, 677.
- (*See also different kinds of grasses, forage plants, grains, by-products, etc.*)
- analyses—
 - compilation of, **Bul. 2, I**, 90; **Rec. II**, 582, 701; **III**, 162, 301, 396, 453, 632; **IV**, 64, 176, 525, 582, 935; **VI**, 331, 444; **XI**, 777.
 - explanation of terms, **Bul. 2, I**, 215; **Rec. I**, 196.

Feeding stuffs—Continued.

- analysis methods, **Bul. 2, II**, 67; **Rec. II**, 90, 133, 185, 323, 523, 608; **IV**, 118; 64, **V**, 457, 510, 932, 937; **VI**, 10, 184; **VII**, 267.
- analysis methods in Belgium and Holland, **Rec. X**, 304; **XI**, 104, 310.
- analysis methods, recent progress in, **Rec. V**, 932, 937.
- analysis, recent progress in, **Rec. V**, 932, 937.
- and feeding rations, **Rec. I**, 266; **II**, 591.
- animal, analyses, **Rec. III**, 748.
- apparatus for preparing samples, **Rec. II**, 483.
- artificial digestion, **Bul. 2, II**, 67; **Rec. IV**, 87.
- artificial digestion of protein in, **Rec. V**, 1032.
- bacteria and mold spores in, **Rec. VII**, 518.
- bacteriological examination, **Rec. V**, 1028.
- Belgian exports, **Rec. V**, 262.
- calculated *v.* market prices, **Rec. III**, 89.
- carbohydrates in, **Rec. III**, 499; **VIII**, 664, 665; **IX**, 220.
- cellulose in, **Rec. IX**, 1021.
- changes in chemical composition during storage, **Rec. XII**, 471.
- composition and thermal value, **Rec. XI**, 1006.
- concentrated—
 - adulteration, **Rec. X**, 1077.
 - analyses, **Rec. X**, 79, 474.
 - Danish, analyses, **Rec. X**, 79.
 - for sheep, **Rec. X**, 281.
 - law, **Rec. IX**, 899.
 - preparation, **Rec. VIII**, 1014.
 - relative value, **Rec. IX**, 476.
 - selection, **Rec. VI**, 330.
- condimental, **Rec. X**, 197.
- condimental, analyses, **Rec. I**, 282; **XII**, 71, 171, 378.
- control, **Rec. VIII**, 331; **IX**, 1; **X**, 582; **XI**, 777.
- control— (*See also FEEDING STUFFS, INSPECTION.*)
 - at Halle, **Rec. V**, 364.
 - Hohenheim, report, **Rec. III**, 656.
 - in England, **Rec. V**, 754.
 - Germany, **Rec. III**, 753; **IV**, 982.
 - Holland, **Rec. V**, 670, 671, 674.
 - Sweden, **Rec. V**, 1025; **IX**, 104, 1099.
 - Switzerland, **Rec. V**, 258.
- cooperation in purchase, **Rec. V**, 549.
- cost—
 - and valuation, **Bul. 2, I**, 52.
 - net, **Rec. I**, 223.
 - of analyses, **Rec. V**, 562.
 - constituents, **Rec. II**, 323.
- Danish concentrated, analyses, **Rec. X**, 79.
- detection—
 - of castor-oil seed and croton seed in, **Rec. IV**, 211.
 - formic aldehyde, **Rec. X**, 20.
 - sand in, **Rec. V**, 823.
- determination—
 - of albuminoid nitrogen in, **Rec. III**, 615, 633.
 - ash in, **Rec. III**, 246.
 - crude fiber in, **Rec. IV**, 767, 781; **VI**, 866; **X**, 411, 716.
 - digestibility, **Rec. IX**, 504.
 - fat in, **Rec. II**, 523; **III**, 516, 615, 632; **V**, 460; **X**, 310.
 - free fatty acids in, **Rec. II**, 684; **V**, 460.

Feeding stuffs—Continued.

determination—continued.

of fiber, Rec. XI, 1006.

"freshness," Rec. XI, 506.

galactan, Rec. IX, 372.

moisture in, Rec. II, 350.

mold spores in, Rec. VII, 518.

mustard oil in, Rec. VIII, 203, 378.

nitrogen in, Rec. VI, 864; VII, 89.

pentosans and pentoses in, Rec. V, 613;

VI, 111; VII, 830, 831; VIII, 281; IX, 322.

protein, Rec. XI, 418.

starch in, Rec. VI, 184.

water, Rec. I, 135.

digestibility, Bul. 2, II, 50; Rec. II, 50, 267, 373; III, 318, 357; IV, 437, 595, 732, 935; VI, 7, 331, 445, 467, 1009; VII, 336; VIII, 427; IX, 377, 476, 504; XI, 483; XII, 275.

(See also *different feeds*.)

digestibility—

as affected by watering before or after feeding, Rec. VI, 745.

by sheep, Rec. IX, 783.

of nitrogen in, Rec. V, 465; XII, 777.

non-nitrogenous constituents, Rec. XII, 677.

pentoses in, Rec. IV, 618.

effect on organism, Rec. VII, 335.

ensiling, Rec. V, 256.

fat compounds in, Rec. V, 337.

fatty acids in, Rec. VII, 973.

fats, changeability of, Rec. II, 613.

fertilizing—

constituents, Rec. III, 89; V, 499.

constituents recovered, Rec. XI, 1022.

values, Rec. I, 296; IV, 64, 66, 67, 735; VI, 287.

food value, Rec. VI, 468.

for arid regions of Sicily, Rec. IX, 1079.

horses, nutritive value, Rec. XI, 79.

supplementing pasturage, Rec. XI, 779.

for times of drought, Rec. VI, 663.

from molasses, Rec. IV, 620.

fuel value, Rec. III, 386; IV, 935.

handbook, Rec. XII, 1077.

identification of chaff in, Rec. XI, 672.

impurities in, Rec. XII, 219.

in California, Rec. IV, 732; V, 596.

inspection, Rec. IX, 682; X, 381, 835, 1089; XI, 380, 482, 777, 971; XII, 377, 877.

(See also FEEDING STUFFS, CONTROL.)

investigations, Rec. VII, 614.

iodin number of fat, Rec. V, 461.

laws, Rec. VII, 380, 573; XII, 169, 279, 282, 378.

lecithin content, Rec. IX, 1020.

loss of energy in digestion, Rec. XII, 1073.

market prices, Rec. II, 573, 575; IX, 682; X, 480; XII, 378.

method for determining cost of constituents, Rec. II, 323.

microscopic examination, Rec. V, 655, 733; IX, 918.

mixtures, analyses, Rec. XI, 883.

mustard oil in, Rec. VIII, 378.

nature and use, Rec. VI, 330.

needed investigation, Rec. I, 248.

nitrogen-free extract, Rec. VIII, 639, 641.

nitrogen-free extract, composition, Bul. 2, II, 52.

Feeding stuffs—Continued.

nitrogen in, Rec. VII, 89.

nitrogenous, Rec. X, 884.

nutritive—

equivalents, Rec. XII, 378.

value, Bul. 2, II, 55; Rec. I, 223.

patent, Rec. IV, 568; V, 66.

patent, tests, Rec. III, 877; V, 66.

pentaglucooses in, Rec. II, 92.

pentosans in, Rec. VIII, 281; IX, 225, 726; X, 79.

"physiological nutritive value," Rec. XII, 1072.

preparation, Rec. VII, 425.

prevention of fraud, Rec. X, 36.

protein content, Rec. X, 977.

rancid fat in, Rec. VII, 519.

rational purchase, Rec. IV, 625.

recent investigations, Rec. XI, 882.

rules for dealers, Rec. XII, 350.

sampling, Rec. IV, 76; V, 66.

sampling, directions for, Bul. 2, II, 142.

selection, Rec. II, 579; IV, 661; V, 195.

solvent for fats, Rec. II, 488.

spontaneous combustion, Rec. VII, 336; IX, 620.

study, recommendation for, Rec. II, 91.

sugar and starch in, Bul. 2, II, 52.

used on the farm, compensation for, Rec. IX, 1043.

valuation, Bul. 2, I, 52; Rec. I, 15; II, 323, 645; III, 14, 89, 513; IV, 64, 174, 661, 741; VIII, 1014.

value and use, Rec. X, 480.

value, comparative, Rec. I, 222; II, 101; X, 175, 479, 481.

Feeding tests, experimental error, Rec. XI, 382; XII, 283, 284.

Feeds—

and feeding, manual, Rec. X, 82.

mixed—

analysis, Rec. XII, 378, 587, 981.

digestibility, Rec. XII, 873.

Fehling's—

solution, Rec. IX, 808; X, 20, 314, 412.

solution—

for determination of maltose, Rec. VII, 271.

determination of sugars, Rec. VIII, 286.

determination of uric acid, Rec. VIII, 104.

improvement, Rec. IV, 782.

oxidation of alcohol by, Rec. VI, 503.

standardization, Rec. V, 433; VI, 111.

solutions, titration, Rec. VI, 270.

titration in wine analysis, Rec. VI, 615, 869.

Feijoa sellowiana, notes, Rec. X, 757; XI, 48.

Feldspar—

decomposition, Rec. XII, 124.

in pot experiments with oats, Rec. II, 649.

Felidae in Idaho, Rec. III, 184.

Feltia—*annexa*, notes, Rec. VIII, 66; IX, 370.*gladiaria*, notes, Rec. VIII, 66.*jaculifera*, notes, Rec. VIII, 66.*malefida*, notes, Rec. IX, 370.*subgothica*, notes, Rec. VI, 915; VIII, 65, 66, 241; XI, 471.

- Fen and marsh soils of South Lincolnshire, analysis, *Rec. V*, 346; *VI*, 395.
- Fence posts—
preservatives, *Bul. 2, II*, 74.
preservation, *Rec. IV*, 75.
record of setting, *Bul. 2, II*, 74.
- Fences—
farm, notes, *Rec. V*, 1034; *VII*, 432.
for pig pastures, *Rec. X*, 196.
- Fennel—
dog, notes, *Rec. III*, 893; *VI*, 822.
grafted on wild carrot, *Rec. V*, 1089.
notes, *Rec. III*, 598.
seedcake, digestion experiments, *Rec. V*, 1032.
- Fenugreek—
analyses, *Rec. VI*, 404.
as a soil improver, *Rec. XII*, 849.
culture experiments, *Rec. IX*, 41.
germination tests, *Bul. 2, I*, 30.
notes, *Rec. IX*, 41; *XII*, 936.
- Fenusa rubi*, notes, *Rec. IV*, 838.
- Ferment—
alcoholic, morphology and physiology, *Rec. V*, 435; *XI*, 125.
analogous to emulsin in fungi, *Rec. V*, 819.
blood-coagulating, *Rec. IX*, 1029.
diastatic, in plants, *Rec. V*, 1097.
fibrin, *Rec. IX*, 1029.
in bananas as affecting sugar determination, *Rec. V*, 127.
barley, *Rec. X*, 1015.
ripe bananas, *Rec. V*, 223.
new, of vegetable origin, *Rec. VII*, 921; *VIII*, 472.
nitric, *Rec. VIII*, 959.
nitric—
of Stutzer and Hartleb, *Rec. X*, 123.
recent investigations, *Rec. VI*, 882.
of cellulose, *Rec. IX*, 922.
organized, of cherry gum, *Rec. IV*, 314.
oxidizing of muddy wine, *Rec. VIII*, 960.
soluble—
oxidizing, of wine, *Rec. IX*, 120.
proteo-hydrolytic, in mushrooms, *Rec. X*, 929.
reducing nitrates in animals, *Rec. XI*, 715.
- Fermentable substances, quantitative determination, by yeasts, *Rec. IV*, 782.
- Fermentation—
acetic—
acid, studies, *Rec. IV*, 693; *VI*, 969; *VII*, 20.
bacteria, *Rec. IX*, 627.
of vinegar, *Rec. V*, 441; *VII*, 20.
alcoholic, *Rec. VII*, 659; *IX*, 120, 814, 1028; *X*, 124, 224.
alcoholic—
as affected by calcium sulphite, *Rec. V*, 618.
affected by potassium bisulphite, *Rec. V*, 618.
determination of starch by, *Rec. VI*, 374.
effect of antiseptics, *Rec. VI*, 170.
for determining starch, *Rec. VI*, 190, 374.
heat disengaged in, *Rec. VII*, 278.
relation to aromatic principles, *Rec. XI*, 125.
studies, *Rec. VI*, 170, 250, 345.
without yeast cells, *Rec. XI*, 713.
- Fermentation—Continued.
ammoniacal—
of the soil, *Rec. IV*, 860.
studies, *Rec. IX*, 1028; *X*, 1017.
anaerobic, by *Bacillus orthotyllicus*, *Rec. VI*, 280.
analogous to solar combustion, *Rec. V*, 819.
and bacteria, literature, *Rec. V*, 650.
as affected by—
constituents of cider, *Rec. IX*, 594.
oxygen, *Rec. XI*, 122.
bacteria in, *Rec. XI*, 125, 714.
butyric acid, *Rec. VII*, 71.
chemistry of, *Rec. IV*, 222; *IX*, 627.
citric, *Rec. V*, 435.
effect on—
the feeding value of hay, *Rec. XI*, 479.
tobacco, *Rec. X*, 243.
experiments, *Rec. VIII*, 958.
experiments—
with honey, *Rec. VIII*, 375.
peat, *Rec. IX*, 418.
turf, *Rec. IX*, 814.
in the leather industry, *Rec. V*, 435.
inorganic, analogy to true fermentation, *Rec. XI*, 706.
intestinal, in animals fed tuberculous meat, *Rec. VIII*, 157.
lactic—
as related to phosphates and casein, *Rec. V*, 260, 656, 1045.
influence of mineral poisons on, *Rec. V*, 734.
studies, *Rec. VI*, 969.
micro-organisms of, *Rec. VI*, 694.
manual, *Rec. III*, 661; *XI*, 715.
nature and control, *Rec. XI*, 125.
of bananas, *Rec. V*, 128.
barnyard manure, *Rec. IX*, 36.
bran, study, *Rec. V*, 254.
cellulose, *Rec. VII*, 659; *IX*, 1029; *XII*, 722.
cherry juices, *Rec. III*, 555.
dough, *Rec. VI*, 468.
fresh grass, *Rec. IX*, 723, 918.
galactose, *Rec. VIII*, 742; *XII*, 915.
grape—
and apple must with pure cultures, *Rec. IV*, 517.
must as affected by copper sulphate, *Rec. VI*, 969; *VII*, 20.
glucose, *Rec. V*, 344.
kidney beans, *Rec. X*, 155.
manure, *Rec. III*, 736; *IV*, 614; *V*, 35, 146.
milk, *Rec. IV*, 189, 201, 202; *VII*, 429.
milk as affected by mineral salts, *Rec. V*, 260, 1047.
must, *Rec. X*, 123.
olives, *Rec. XI*, 125.
red beets, *Rec. XI*, 715.
sauerkraut, *Rec. IX*, 121.
silage, *Rec. I*, 200; *III*, 587; *V*, 60.
soils, *Rec. IV*, 536, 627.
sucrose by pure yeasts, *Rec. VII*, 659.
tobacco, *Rec. III*, 354, 367; *IV*, 910, 985; *V*, 454; *X*, 1014; *XI*, 341, 727; *XII*, 335, 443, 916.
tobacco—
bacteria in, *Rec. XII*, 720.
cause, *Rec. XII*, 722.

Fermentation—Continued.

- of uric acid by micro-organisms, *Rec. VII*, 929.
- wine, *Rec. IV*, 616; *IX*, 120, 696, 894, 1095; *XI*, 126.
- oxalic acid, *Rec. IX*, 120.
- physiology and chemistry, *Rec. VII*, 278.
- relation—
 - between alcohol and yeast growth, *Rec. IV*, 517.
 - to denitrification, *Rec. XII*, 115.
- review of works on, *Rec. VII*, 658.
- studies, *Rec. VII*, 658; *VIII*, 868; *IX*, 627; *X*, 123.
- tests of milk, *Rec. V*, 260, 1045.
- theories, *Rec. VIII*, 473.
- without—
 - live cells, *Rec. X*, 1017.
 - yeast, *Rec. XI*, 715.
- yeast, *Rec. III*, 926; *X*, 25, 124, 322.

Fermentations—

- in soils, *Rec. V*, 346.
- treatise, *Rec. XII*, 694.
- vital and chemical, *Rec. IV*, 448.

Fermentative action of intestinal fluid, *Rec. X*, 679.

Fermented liquors—

- determination of glycerin in, *Rec. III*, 924.
- glycerol in, *Rec. XII*, 1007.
- methods of analysis, *Rec. II*, 92, 608; *III*, 632; *IV*, 183; *V*, 510; *VII*, 267; *VIII*, 277.

Ferments—

- aerobic—
 - in soils, *Rec. IV*, 537.
 - straw, reducing nitrates, *Rec. III*, 749, 916.
- alcoholic—
 - formation of enzymes, *Rec. XII*, 915.
 - origin, *Rec. VII*, 659.
 - physiology and morphology, *Rec. V*, 435; *XI*, 125; *XII*, 915.
 - transmission by insects, *Rec. X*, 123.
- as affected by liquid air, *Rec. XII*, 916.
- cultivated, modification of wines by, *Rec. V*, 928.
- diastatic—
 - effect of heat on, *Rec. IX*, 924.
 - of animal body, action of carbonic acid on, *Rec. V*, 732.
- digestive in newly-born animals, *Rec. III*, 655.
- dissemination in soil, *Rec. XI*, 227.
- effect on germination of old seed, *Rec. XI*, 460.
- enzymic—
 - effect on starches of different origin, *Rec. VIII*, 662.
 - in plant physiology, *Rec. IX*, 624, 923.
- experiments with, *Rec. VII*, 257.
- manual, *Rec. XI*, 715; *XII*, 916.
- nitrifying of the soil, *Rec. V*, 651.
- of food, effect on digestion, *Rec. VI*, 162.
- urea, studies, *Rec. IX*, 1028; *X*, 1017.
- wine, *Rec. V*, 735; *X*, 1015, 1017.
- wine diseases, *Rec. X*, 123, 1016; *XI*, 715.
- oxidizing—
 - in fungi, *Rec. VII*, 564.
 - phanogams, *Rec. XI*, 715.
- proteolytic and amylolytic, in feces, *Rec. XII*, 477.

Ferments—Continued.

- pure selected, use, *Rec. III*, 926.
- soluble, *Rec. V*, 345; *XI*, 715.
- soluble—
 - in alcoholic solutions, *Rec. VII*, 659.
 - seeds, *Rec. XII*, 118.
 - investigations, *Rec. III*, 749.
 - of *Polyporus sulphureus*, *Rec. VII*, 468.
- unorganized—
 - in milk, *Rec. X*, 785.
 - reactions, *Rec. III*, 749.
 - vegetables, *Rec. V*, 128.

Fern—

- eagle, notes, *Rec. III*, 598.
- hybrids, *Rec. XII*, 613.
- litter, analyses, *Rec. VIII*, 880.
- prothallia, development of sporangia, *Rec. X*, 223.

Ferns—

- bladder, *Rec. X*, 641.
- crossing and hybridizing, *Rec. XII*, 613.
- culture, *Rec. VI*, 991; *XI*, 550, 650, 745.
- germination, *Rec. XII*, 350.
- hardy British, *Rec. IX*, 756.
- of South Dakota, *Rec. XI*, 817.
- ornamental, tip blight, *Rec. V*, 937; *VI*, 827.
- propagation, *Rec. X*, 758.
- sporangium, *Rec. V*, 450.
- trichomes on, *Rec. VI*, 487.
- varieties, *Rec. VI*, 991.
- variation, *Rec. VIII*, 567.

Ferrets, management, *Rec. IX*, 530.

Ferric chlorid—

- effect on germination of seed, *Rec. V*, 882.
- evaporation from acid solutions, *Rec. X*, 920.
- for grain rusts, *Rec. IV*, 955.

Ferric oxid—

- determination in natural phosphates, *Rec. XII*, 416.
- effect on soil absorption, *Rec. III*, 316.

Ferrocyanid test for Bordeaux mixture, *Rec. VI*, 560.

Ferrous sulphate—

- effect on germination of seeds, *Rec. V*, 882.
- for destroying micro-organisms, *Rec. X*, 620.

Fertility. (*See* SOILS.)

Fertilization—

- and reproduction of *Cystopus candidus*, *Rec. VII*, 748.
- of citrus fruits and grapes, *Rec. VI*, 729.
- flowers, *Rec. XI*, 709, 909.
- fruits, experiments, *Rec. VII*, 34.
- Goodeniaceæ, *Rec. VII*, 94.
- Pinus sylvestris*, *Rec. V*, 1028.
- plants, artificial boxes for, *Rec. XII*, 613.
- plums, *Rec. VIII*, 309.
- Prunus americana* varieties, *Rec. VI*, 723.
- soils, *Rec. VI*, 630.
- the orange, *Rec. VII*, 500.
- vanilla flowers by bees, *Rec. VI*, 196.

Fertilizer— (*See also* NITROGEN, PHOSPHORIC ACID, POTASH, etc.)

analyses—

- compiled, *Bul. 2. I*, 90; *Rec. III*, 162; *IV*, 26; *VI*, 287; *VIII*, 392; *IX*, 339.
- complete, *Rec. XI*, 1026.
- gratuitous, *Rec. V*, 861.

Fertilizer—Continued.

analyses—continued.

incomplete, *Rec. II*, 280.use of, *Rec. VIII*, 116.

analysis—

alkaline permanganate method, *Rec. XI*, 330.explanation of terms, *Rec. I*, 37, 137; *IV*, 692; *V*, 861, 1070; *VI*, 980; *VII*, 111, 112, 196, 491, 572, 854; *VIII*, 38, 40, 299, 389, 766, 970; *IX*, 338, 339, 1044; *X*, 136, 229, 428, 734, 833.methods, *Bul. 2, II*, 65; *Rec. II*, 522, 607; *III*, 633, *IV*, 27, 116, 692; *V*, 384, 457; *VI*, 131, 179, 367; *VII*, 263; *VIII*, 272, 276; *IX*, 405; *X*, 104, 304.preparation of samples, *Rec. III*, 633.synoptic tables, *Rec. XII*, 715.tables for calculating, *Rec. VI*, 882.calendar for 1900, *Rec. XII*, 38.constituents of soils, assimilability, *Rec. XI*, 138.control— (*See also* FERTILIZERS, INSPECTION.)at Mückern station, *Rec. IV*, 985.desirability, *Rec. II*, 272.in Baltic Provinces, *Rec. X*, 36.Belgium, *Rec. V*, 555.Connecticut, *Rec. X*, 229.England, *Rec. V*, 745.Europe, *Rec. V*, 746.European countries, *Rec. VII*, 942.Germany, *Rec. IV*, 981; *V*, 364, 746; *VI*, 10; *VII*, 198; *VIII*, 392.Holland, *Rec. V*, 670, 671.Louisiana, *Rec. VII*, 854.Massachusetts, *Rec. VII*, 294; *IX*, 339.Mississippi, *Rec. IX*, 1044.Missouri, *Rec. VIII*, 970; *X*, 36; *XI*, 1025.New Jersey, *Bul. 2, I*, 141.North Carolina, *Rec. I*, 137; *VII*, 111, 258; *VIII*, 300, 879; *IX*, 336, 339; *X*, 732; *XI*, 1095.Pennsylvania, *Rec. I*, 145.Russia, *Rec. VII*, 491.Sweden, *Rec. IX*, 1044, 1099; *XI*, 39.control of 1897, *Rec. X*, 428.constituents of castor bean, *Rec. IX*, 343.experiments— (*See also* FERTILIZERS, FIELD EXPERIMENTS, and SPECIAL CROPS.)as related to soil analysis, *Rec. V*, 346; *VI*, 391, 705; *VII*, 752.at Dresden station, *Rec. III*, 350.Grignon, France, *Rec. VI*, 140.Halle station, *Rec. III*, 342.cooperative, *Bul. 2, I*, 37, 45, 58, 174; *Bul. 2, II*, 43, 49; *Rec. I*, 284; *II*, 9, 235, 412, 710, 716; *III*, 129, 164, 377, 394, 514, 530, 684, 686; *V*, 168, 573, 976, 1034; *VI*, 202, 398, 530, 718; *VII*, 571, 575, 577, 581, 764, 951, 958; *VIII*, 399; *X*, 136, 750, 848, 956.cooperative, in Ontario, *Rec. IX*, 317.cooperative, means of encouraging, *Rec. XI*, 506.cooperative plan, *Rec. XII*, 324.cooperative, plan and results, *Rec. XII*, 125.

Fertilizer—Continued.

experiments—continued.

in Austria, *Rec. XI*, 1026.Cape Colony, *Rec. VII*, 122.Denmark and Germany, *Rec. XII*, 225.European countries, *Rec. VII*, 198, 854, 942.France, *Rec. IX*, 240.Germany, *Rec. III*, 275; *VIII*, 485.Great Britain, *Rec. V*, 704, 710; *VI*, 398; *VII*, 578.Italy, *Rec. V*, 1029.Norway, *Rec. VI*, 25; *IX*, 1043.Russia, *Rec. VIII*, 968; *XI*, 35.Spain, *Rec. IV*, 875.Sweden, *Rec. VIII*, 209.Switzerland, *Rec. V*, 255.Wales, *Rec. V*, 737, 933.methods, *Rec. IX*, 740; *XI*, 198.methods of conducting, *Rec. XII*, 642, 1036.misuse of results, *Rec. VI*, 256.of German Agricultural Society, *Rec. VI*, 882; *VII*, 757.on crop rotations, *Rec. XI*, 1027.muck land, *Rec. XI*, 1037.summary, *Rec. XI*, 230, 438.for plants, patented, *Rec. VIII*, 40.potted plants, *Rec. IX*, 648.

formulas—

for special crops, *Rec. XI*, 831.fruit trees, *Rec. XI*, 451.fraudulent, *Rec. V*, 351; *IX*, 123.uniformity, *Rec. VI*, 518.uses and abuses, *Rec. XI*, 1099.industry— (*See also* FERTILIZER TRADE.)at the World's Fair, *Rec. V*, 730.development and extent, *Rec. V*, 446.fraud, *Rec. VII*, 25, 111; *IX*, 123; *X*, 36, 397; *XII*, 841.fraud in France, *Rec. V*, 651, 819, 907.in Alabama, *Rec. XI*, 1026.United States, *Rec. X*, 130; *XII*, 736.progress in, *Rec. VII*, 25.recent progress, *Rec. XI*, 831.statistics, *Rec. VI*, 202, 400; *VII*, 668.laws, *Rec. VI*, 401; *VII*, 111, 380, 491, 573, 757;*VIII*, 117, 299, 682; *IX*, 339, 739, 825; *XII*, 626.

laws—

in Alabama, *Rec. I*, 184; *VI*, 401.Arkansas, *Rec. I*, 9.Connecticut, *Bul. 2, I*, 38; *Rec. V*, 486; *VII*, 195; *VIII*, 389; *IX*, 538; *X*, 229; *XI*, 719; *XII*, 128, 931.England, *Rec. V*, 745.Georgia, *Rec. IV*, 787.Indiana, *Rec. I*, 37; *XI*, 438.Kentucky, *Rec. I*, 218; *X*, 336; *XI*, 137, 627.Louisiana, *Rec. I*, 221; *III*, 444; *VIII*, 767; *IX*, 1044; *XI*, 39; *XII*, 130.Maine, *Rec. VII*, 111; *VIII*, 767; *IX*, 436, 739, 899; *X*, 337, 734; *XI*, 137.Maryland, *Rec. VI*, 287, 980; *X*, 136; *XI*, 38.Massachusetts, *Bul. 2, I*, 89; *Rec. III*, 162; *IV*, 27; *VII*, 294; *VIII*, 767; *IX*, 339.

Fertilizer—Continued.

laws—continued.

in Michigan, Rec. I, 226; III, 290; VI, 401; VII, 380; VIII, 584; X, 734; XI, 528.
Mississippi, Bul. 2, I, 106; Rec. X, 428; XI, 528.

New Hampshire, Rec. VII, 109; X, 36.

New Jersey, Bul. 2, I, 141; Rec. III, 298, 310; IV, 76; V, 415; VII, 668; VIII, 877; XI, 720; XII, 324.

New York, Rec. VI, 980; VII, 111, 572;

VIII, 38, 212, 582; IX, 37; XI, 235.

North Carolina, Rec. I, 137; III, 709;

IV, 715; V, 325, 861, 1070; VI, 980; VII, 111, 112, 854; VIII, 970; IX, 336.

Pennsylvania, Rec. I, 145; V, 1035; VI, 401, 798; X, 337, 428; XI, 917; XII, 39.

Rhode Island, Rec. III, 315; IV, 247; X, 735.

South Australia, Rec. X, 835; XI, 138.

South Carolina, Rec. III, 536; VI, 402; VII, 295; XI, 438, 831; XII, 430.

Tennessee, Rec. I, 149.

Texas, Rec. XI, 438.

Vermont, Rec. VII, 112.

West Virginia, Rec. III, 628; VIII, 117; IX, 638; X, 136; XI, 34; XII, 226, 430.

Washington, Rec. XII, 225.

Wisconsin, Rec. VIII, 115, 212; IX, 543; XI, 138, 528; XII, 39, 226.

legislation, uniformity, Rec. X, 506.

literature, Rec. XII, 841.

mixtures, formulas, Rec. IV, 787.

nitrogen, loss, Rec. VIII, 388.

problems, Rec. VIII, 40.

requirements—

of bananas, Rec. VI, 815.

California soils, Rec. VIII, 680; IX, 123.

cereals, Rec. VI, 541.

chrysanthemums, Rec. VI, 143; VII, 583.

cultivated plants, Rec. VII, 664.

orchards, Rec. VII, 771.

rye, Rec. VIII, 44.

soils, Rec. III, 750, 920; V, 730; VII, 664; X, 235, 623, 1031, 1033, 1034.

sugar beets, Rec. VIII, 122.

tobacco, Rec. IV, 31.

tomatoes, Rec. VII, 499.

resources of Alabama, Rec. XI, 1026.

trade— (*See also* FERTILIZER INDUSTRY.)

in Belgium, Rec. VIII, 378.

Connecticut, Rec. VII, 109, 195; VIII, 389; IX, 339, 538; X, 229; XI, 719; XII, 129.

different States, Rec. XI, 229.

Georgia, Rec. IV, 787; VIII, 299.

Indiana, Rec. III, 69; IV, 106; VI, 397; VII, 196; VIII, 40, 300; IX, 35; X, 136.

Maine, Rec. IX, 436.

Maryland, Rec. VII, 294; VIII, 212; IX, 36, 939.

Massachusetts, Rec. VI, 522; VII, 294; IX, 339,

Michigan, Rec. IX, 938.

Mississippi, Rec. XI, 528.

Missouri, Rec. XI, 1025.

New Hampshire, Rec. X, 36.

Fertilizer—Continued.

trade—continued.

in New Jersey, Bul. 2, I, 116; Rec. IV, 25, 26; VI, 396, 797; VII, 668, 940; IX, 636, 934; X, 426, 1031; XI, 720, 880; XII, 324.

New York, Rec. VI, 980; VII, 111.

North Carolina, Rec. VIII, 879; IX, 336; X, 732.

Pennsylvania, Rec. VI, 401.

Rhode Island, Rec. VI, 401; VII, 294; VIII, 682.

South Carolina, Rec. VI, 402; VII, 295.

Vermont, Rec. I, 156; VI, 980; VIII, 969.

values, Rec. I, 9; XI, 1025.

Fertilizers— (*See also specific materials.*)

absorptive power of soils for, Rec. VI, 120.

action as affected by—

distribution, Rec. XII, 839.

physical properties of the soil, Rec. IV, 638.

adulteration, Rec. IV, 318; V, 861; VI, 134, 522, 631; VIII, 484; IX, 199.

agricultural relations, Bul. 2, I, 121.

alkaline salts in, Rec. VII, 272.

ammoniacal, on calcareous soils, Rec. XI, 330.

and barnyard manure, Rec. VI, 134.

ferments of the soil, Rec. VII, 489.

fertilizing materials, Rec. I, 127.

fruits, Rec. IX, 358.

green manure, Rec. VI, 400.

irrigation, Rec. VII, 631.

manures, Rec. IX, 740.

application, Rec. VI, 222; VII, 121, 490, 941; VIII, 484; X, 236; XII, 442.

applying—

at different rates, Rec. IV, 120.

by diffusion, Rec. X, 428.

methods of, Rec. II, 228; III, 224; V, 730, 1029; VI, 203.

artificial, Rec. IX, 1044.

as affected by tillage, Rec. IV, 640.

a factor in crop production, Rec. VIII, 391.

insecticides, Rec. II, 269; III, 449, 610; V, 515, 577; VI, 237, 653.

availability, Rec. X, 197, 232.

availability of nitrogen in, Rec. V, 777; VI, 130; IX, 540, 637; X, 232.

availability of organic nitrogen in, Rec. V, 511; VI, 130; VII, 191; VIII, 387; IX, 540, 637; XI, 328, 720; XII, 224, 932.

available phosphoric acid in, Rec. V, 288.

box experiments with, Bul. 2, II, 46.

by-products as, Rec. VIII, 767.

calculated *v.* market price, Bul. 2, I, 40; Rec. II, 481; III, 9.

changes in quality, Rec. II, 178.

chemical—

composition and relative commercial values, Bul. 2, I, 119.

effects, Rec. VI, 521.

tests, Rec. VIII, 682; XI, 1026.

choice and use, Rec. VI, 203.

citrate method for determining phosphoric acid in, Rec. II, 489.

commercial—

v. farm manure, Rec. I, 128; II, 18, 19, 327.

barnyard manure for oats, Rec. IV, 131.

Fertilizers—Continued.

- composition and use, *Rec. VIII*, 390; *XI*, 36; *XII*, 38, 324.
- compost, value, *Rec. XI*, 157.
- consumption in United States, *Rec. IX*, 739.
- cooperation in purchase, *Rec. V*, 549.
- cost—
 - of analysis, *Rec. V*, 562.
 - plant food in, *Rec. IX*, 339; *X*, 337.
- decomposition in soils, *Rec. III*, 113.
- determination—
 - of ammonia, *Rec. XI*, 506.
 - nitrogen in, *Rec. II*, 523; *V*, 510, 802; *VI*, 502; *VII*, 111, 181, 272, 826; *XII*, 306.
 - phosphoric acid in, *Rec. II*, 489, 522; *V*, 1009.
 - potash in, *Rec. VI*, 371, 865, 867.
- diffusion in the soil, *Rec. IV*, 388.
- distribution, *Rec. XII*, 934, 1025.
- duties of dealers, *Rec. II*, 100.
- effect—
 - of quantity on yield of crops, *Rec. X*, 1036.
- on absorptive power of soils, *Rec. VII*, 938.
- ash of plants, *Rec. IX*, 45, 134.
- burning quality of tobacco, *Rec. VII*, 118, 951.
- circulation of soil water, *Rec. IV*, 23.
- composition of corn, *Rec. I*, 62, 156.
- composition of crops, *Rec. IV*, 470; *XI*, 336.
- composition of grasses, *Rec. IV*, 29; *V*, 579.
- composition of oats, *Rec. V*, 579.
- composition of turnips, *Rec. VIII*, 592.
- corn, *Rec. II*, 145, 398.
- development of potato scab, *Rec. XI*, 256.
- diseases of grapes, *Rec. IX*, 1062; *X*, 59, 457.
- fat content of rape seed, *Rec. XI*, 141.
- fertility of soil, *Rec. XI*, 331.
- germination of garden peas, *Rec. VII*, 123.
- germination of seeds, *Rec. VIII*, 55; *XII*, 347.
- growth of flowers, *Rec. VIII*, 108.
- hay, *Rec. VI*, 888.
- humus content of soils, *Rec. XII*, 727.
- humus soil, *Rec. IX*, 1038.
- Kentucky blue grass, *Rec. II*, 633.
- mosaic disease of tobacco, *Rec. XI*, 359.
- navel oranges, *Rec. VIII*, 692.
- nitrogen content of sugar-beet leaves, *Rec. VII*, 955.
- orange trees, *Rec. II*, 491.
- plant growth, *Rec. VII*, 196; *IX*, 939.
- proportion of grain to straw and stover, *Rec. VIII*, 778.
- proportion of grain to straw, *Rec. IX*, 799.
- proportion of kernel to cob, *Rec. II*, 143, 725.
- quality and quantity of crop, *Bul. 2*, *I*, 86.
- quality and quantity of forage, *Rec. IX*, 446.
- quality of tobacco, *Rec. II*, 457.

Fertilizers—Continued.

- effect—continued.
 - on seed germination, *Rec. X*, 645.
 - shrinkage of corn, *Rec. I*, 62; *II*, 144, 725.
 - soil and crop, *Rec. X*, 245.
 - sugar cane, *Rec. VII*, 678.
 - sugar content of sorghum, *Bul. 2*, *I*, 26.
 - texture of soils, *Rec. IV*, 18.
 - tobacco, *Bul. 2*, *II*, 38; *Rec. VI*, 210.
 - tomato blight, *Rec. X*, 1053.
 - tomatoes, *Rec. II*, 350; *IV*, 827.
 - vegetation, *Rec. I*, 128.
 - wheat, *Bul. 2*, *II*, 22.
 - yield of hay, *Rec. V*, 530.
- effectiveness, *Rec. VIII*, 967.
- extent of use in Maryland, *Rec. II*, 228.
- factory-mixed and home-mixed, *Rec. XII*, 997.
- fall, *Rec. VIII*, 116.
- field experiments, *Bul. 2*, *I*, 21, 64; *Bul. 2*, *II*, 43, 48, 82, 132, 148; *Rec. IV*, 449, 783, 861; *VII*, 292, 302, 571, 573, 578, 854; *VIII*, 576, 883; *IX*, 37, 287, 339, 743, 747, 939.
- for crops in rotation, *Rec. III*, 888.
- garden and orchard, *Rec. X*, 353.
- grasses, *Rec. II*, 602.
- for greenhouse—
 - crops, *Rec. II*, 235.
 - plants, *Rec. III*, 230.
- for crops in rotation, *Rec. V*, 167.
- horticulture, *Rec. IX*, 755.
- land exhausted by flax, *Rec. II*, 496.
- natural meadows, *Rec. X*, 1034.
- pastures, value as determined by production of hay and mutton, *Rec. X*, 1085.
- worn cotton soils, *Rec. IX*, 634.
- freight rates, *Rec. VII*, 111, 112.
- from apatite and similar mineral phosphates, *Rec. IX*, 1042.
- home-made, warning, *Rec. XII*, 933.
- home-mixing, *Bul. 2*, *I*, 37, 41, 173; *Rec. I*, 16, 70, 129, 184; *II*, 164, 229, 280, 481, 735; *III*, 8, 168; *IV*, 245, 791, 902, 903; *V*, 288, 290, 390, 777; *VI*, 134, 287, 396, 401, 402, 522, 706, 797, 980; *VII*, 111, 112, 195, 196, 294, 295, 380, 581, 668, 670, 757, 854, 941; *VIII*, 299, 389, 582, 584, 767, 877, 966, 970; *IX*, 336, 339, 636, 899, 934, 935, 939; *X*, 136, 230, 426, 532, 623, 698, 1031; *XI*, 228, 497.
- humus and mineral, *Rec. VIII*, 485.
- in Algeria, *Rec. VI*, 133.
- farming, *Rec. VI*, 400.
- garden culture, *Rec. VII*, 504.
- market gardening, *Rec. VI*, 203.
- moor culture, *Rec. VII*, 757.
- solution for cereals, *Rec. V*, 347.
- the Puisaye, *Rec. VI*, 202.
- the United Kingdom, *Rec. VII*, 573.
- increase in demand for, *Rec. II*, 281, 282.
- influence on germination, *Rec. VIII*, 233.
- inspection, *Bul. 2*, *II*, 40, 46; *Rec. I*, 256; *II*, 12, 25, 57, 100, 127, 142, 154, 178, 227, 237, 241, 272, 275, 277, 278, 281, 282, 315, 345, 353, 356, 366, 412, 481, 581, 631, 644, 659, 665, 730, 735; *III*, 8, 161, 162, 168, 213, 227, 290, 292, 299, 310, 311, 315, 399, 444, 471, 623, 628, 709, 712, 763, 864; *IV*, 25, 26, 27, 76, 106, 275, 318, 337, 465, 546, 577, 643,

Fertilizers—Continued.

715, 787, 902, 903; V, 164, 289, 290, 291, 325, 352, 391, 415, 447, 486, 487, 572, 678, 737, 777, 861, 976, 1037, 1070, 1103; VI, 25, 26, 27, 134, 287, 401, 630, 797, 882, 980; VII, 111, 112, 195, 196, 294, 295, 380, 491, 572, 668, 670, 757, 854, 940, 941; VIII, 38, 40, 212, 389, 392, 767, 880, 970; IX, 335, 339, 436, 538, 543, 739, 1098; X, 36, 136, 337, 623, 624, 732, 734, 835, 919; XI, 137, 138, 437, 438, 528, 917; XII, 39, 130, 226, 324, 626, 737, 841, 933.

liquid—

analyses, Rec. VIII, 117; XI, 138, 528.
disinfection, Rec. VII, 853.
experiments, Rec. V, 703; XII, 225.

manufacture—

in Canada, Rec. VII, 380.
methods of, Rec. V, 228, 861.

market prices, Bul. 2, I, 118.

materials used in, Rec. VII, 196.

mineral phosphates as, Rec. VII, 489.

mixed, analyses, Rec. IX, 436; X, 337, 428; XI, 137, 528, 830.

naming, Rec. VII, 491.

nature and use, Rec. VII, 110, 196, 197, 491, 853.
nitrogenous—

application, Rec. IX, 812.
sources, Rec. III, 471; V, 569.
use, Rec. II, 272.
value, Rec. II, 191.

partial v. complete, Rec. IV, 130.

pea vines and roots, Rec. II, 141.

permanency of effect, Rec. II, 144, 725; III, 405; X, 236.

phosphatic, Rec. VIII, 388, 584; IX, 435; X, 35; XI, 229.

phosphatic—

comparison, Rec. V, 924.
value, Rec. II, 191; VII, 269.
valuation, Rec. IX, 1022.

potash, value, Rec. II, 191.

potassic, Rec. VII, 853; VIII, 40.

preparation—

and use, Rec. III, 89; VI, 134, 286, 397, 400, 401, 521, 797; VII, 294, 668; IX, 740.
of samples for analysis, Rec. II, 522.

price of crude stock, Rec. II, 481; III, 9.

purchase and use, Rec. VII, 379, 490; IX, 237.

quality of nitrogenous materials, Rec. II, 644.

quick v. slow for tomatoes, Rec. IV, 547.

refuse leather in, Rec. VII, 110.

residual effect on—

hay, Rec. VIII, 589.
oats, Rec. VIII, 593.

rôle of—

fat in, Rec. VIII, 484.
lime in, Rec. VII, 490.

rotation on grass lands, Rec. X, 627.

sampling, Bul. 2, I, 39, 106, 118, 141; Rec. I, 9, 218; IV, 76; V, 457, 511; VII, 111, 112, 195; VIII, 877; IX, 638; XI, 831.

selection and purchase, Rec. VII, 196.

soil tests, Bul. 2, II, 148; Rec. I, 128; II, 9, 123, 223, 352, 710, 716; III, 164, 866; VIII, 298, 398; IX, 747, 826; X, 27.

solubility in pepsin solution, Rec. X, 337.

statistics, Rec. VII, 100, 101, 111, 197, 198; VIII, 968; X, 131.

Fertilizers—Continued.

studies, Rec. IX, 123.

text-book, Rec. IX, 740; XI, 331.

treatises, Rec. IX, 740; X, 942; XI, 138; XII, 325.

use, Rec. II, 107, 121, 164, 229, 272; III, 148, 242, 311, 314, 592, 607; IV, 132, 587, 715, 903; V, 164, 390, 436, 569, 651, 861, 924, 1098; VI, 122, 286, 395; IX, 237, 435, 899; X, 235; XI, 926; XII, 38, 225, 324, 530, 627.

use in—

gardens, Rec. IX, 754.
horticulture, Rec. X, 853.
spring, Rec. XI, 230.

used on the farm, compensation for, Rec. IX, 1043.

valuation, Bul. 2, I, 40; Rec. II, 25, 57, 100, 127, 142, 154, 164, 178, 227, 241, 273, 275, 277, 281, 282, 315, 345, 353, 374, 481, 581, 621, 644, 659, 666, 730; III, 8, 168, 213, 227, 292, 299, 310, 311, 315, 444, 471, 864; IV, 25, 26, 133, 248, 337, 405, 406, 546, 643, 902, 903; V, 390, 569, 572, 860, 861, 937, 1070; VI, 25, 26, 27, 134, 287, 396, 397, 401, 402, 522, 630, 706, 713, 798, 882, 980; VII, 109, 111, 112, 195, 196, 198, 294, 295, 380, 491, 572, 573, 668, 670, 757, 854, 940, 941; VIII, 38, 40, 116, 117, 212, 299, 300, 389, 392, 582, 682, 766, 767, 768, 877, 880, 966, 967, 970; IX, 35, 36, 123, 335, 336, 338, 339, 436, 538, 636, 638, 739, 825, 934, 939, 1044; X, 36, 136, 229, 235, 336, 337, 426, 428, 623, 624, 732, 734, 735, 833, 1031; XI, 34, 39, 137, 138, 229, 437, 438, 527, 528, 627, 719, 830, 831, 917, 1025, 1026; XII, 38, 39, 129, 130, 131, 429, 430, 626, 737, 840, 841, 931, 933, 1026.

v. barnyard manure, Rec. VI, 400; VII, 573, 670.

Fertilizing—

constituents—

of apples, Rec. II, 25.
castor bean, Rec. IX, 343.
corn, Rec. II, 170, 480, 743; IV, 906.
cowpeas, Rec. II, 170.
feeds recovered, Rec. XI, 1022.
oats, Rec. II, 170.
soils, utilization, Rec. XI, 228.
sweet potatoes, Rec. IX, 695.
constituents removed from soil—
by apples, Rec. II, 25, 272.
grapes, Rec. II, 272.
oranges, Rec. II, 272.
pears, Rec. II, 272.
plums, Rec. II, 272.

in wine, Rec. VI, 902.

effect of crude potash salts, Rec. IX, 826.

elements, proportion, Rec. IX, 349.

ingredients, influence of proportion on yield, Rec. VIII, 485.

materials—

calcareous, tests for, Rec. XI, 506.
sources and cost, Rec. VIII, 584.

value—

of cowpeas, Rec. VI, 45.
natural and waste products, Rec. VIII, 877.
phosphoric acid of bone, Rec. VI, 626.
Thomas slag, Rec. IX, 36.

Fescue—

analyses, Rec. VI, 444.

creeping—

glaucous, notes, Rec. III, 41.

notes, Rec. II, 600.

English, analyses, Rec. XII, 471.

false, analyses, Rec. V, 64, 65.

hard—

analyses, Rec. VI, 404.

culture, Rec. I, 121.

culture experiments, Rec. VIII, 46.

notes, Rec. II, 600; V, 870.

plat experiments, Rec. II, 632.

Hooker's, notes, Rec. VII, 955.

meadow. (See MEADOW FESCUE.)

red—

analyses, Rec. VI, 404.

as a forage plant, Rec. III, 28, 29.

culture experiments, Rec. I, 121; VIII, 46.

notes, Rec. II, 600; V, 679; VI, 294.

reed, notes, Rec. XII, 539.

sheep—

analyses, Rec. VI, 404.

as a forage plant, Rec. III, 28.

culture experiments, Rec. I, 121; IV, 38;

VI, 531; VIII, 46; X, 244.

for meadows and pastures, Rec. II, 238.

notes, Bul. 2, II, 84; Rec. II, 594, 600; V, 910; VI, 97; VII, 384.

plat experiments, Rec. II, 632.

small, culture experiments, Rec. X, 244.

tall—

analyses, Rec. IV, 475; VI, 404; VII, 614.

as a forage plant, Rec. III, 29, 51, 85.

culture experiments, Rec. I, 121; IV, 38; V, 38; VI, 296, 531.

notes, Rec. I, 320; II, 69, 600, 740; VI, 294; VII, 296.

plat experiments, Rec. II, 632.

Tennessee, notes, Rec. III, 41.

various-leaved, culture experiments, Rec. VI, 531.

Festuca—

duriuscula, notes, Rec. II, 600, 632.*clatior*—

analyses, Rec. IX, 268; X, 72.

notes, Bul. 2, I, 164; Bul. 2, II, 84; Rec. I, 320; II, 69, 200, 233, 321, 329, 600, 632; III, 29, 51, 85; V, 577; VI, 294.

clatior arundinacea, notes, Rec. XII, 436, 539.*clatior pratensis*—

notes, Rec. X, 244; XII, 436.

structural characters, Rec. IX, 1027.

kingii, notes, Rec. II, 321.*microstachys*, notes, Rec. II, 321; IV, 951; IX, 348.*ovina*, notes, Bul. 2, II, 84; Rec. II, 594, 600, 632; III, 28; VI, 97; X, 244.*ovina brevifolia*, notes, Rec. II, 321.*ovina duriuscula*, notes, Rec. XII, 436.*ovina clatior*, notes, Rec. XII, 436.*ovina sulcata*, notes, Rec. XII, 436.*pratensis*. (See MEADOW FESCUE.)*rubra*, notes, Rec. II, 600; III, 28, 29; V, 679; VI, 294.*rubra glaucescens*, notes, Rec. III, 41.*scabrella*, notes, Rec. II, 321.

sp., notes, Rec. V, 578.

Festuca—Continued.

subulata, notes, Rec. IV, 951.*tenella*—

notes, Rec. II, 321.

structural characters, Rec. IX, 1027.

viridula, notes, Rec. IV, 951.

Fever—

enteric, Croonian lectures, Rec. X, 497.

epidemic at Worthing in 1893, Rec. VII, 23.

epizootic catarrhal, of dogs, Rec. XI, 191.

malarial, in horses, Rec. XI, 290.

of fowls, Rec. XI, 291.

railroad, of cows, Rec. XI, 289.

splenic, Rec. XI, 193.

splenic, immunity, Rec. X, 496.

suppurative, Rec. II, 318.

Fiber-bearing plants of Florida, Rec. VII, 954.

Fiber—

crude. (See CELLULOSE.)

extracting machine, Wiecher's, Rec. V, 130.

of Manila aloe, Rec. V, 130.

plants—

culture, Rec. X, 433.

culture in Argentine Republic, Rec. V, 134.

culture in Bahamas, Rec. V, 134.

culture in Belgium, Rec. V, 134.

Indian, Rec. VIII, 125.

new, Rec. IX, 348.

of Japan, anatomical studies, Rec. XII, 422.

the world, catalogue, Rec. IX, 328.

sida, notes, Rec. VI, 207.

Fibers—

course through wound tissue, Rec. VII, 748.

culture in Texas, Rec. VII, 121.

leaf, of the United States, Rec. V, 92.

plant, chemistry, Rec. V, 538, 647.

report, Rec. V, 441.

textile, specific gravity and density, Rec. III, 656.

vegetable, Rec. VI, 485.

Fibrillaria xylothrica, notes, Rec. VII, 965.

Fibrin—

as affected by dilute saline solutions, Rec. VI, 869.

crystallized, Rec. XI, 814.

digestion products, Rec. X, 992.

effect in cream-raising, Rec. III, 232.

ferment, Rec. IX, 1029.

formation in anatomical products of tuberculosis, Rec. IX, 392.

heteroalbumoses, nutritive value, Rec. XII, 478.

in milk, Rec. I, 162; II, 429.

Fibrovascular bundles in petiole character, determining species, Rec. X, 519.

Ficaria ranunculoides, reserve matter, Rec. X, 23.

Ficus—

comosa, notes, Rec. V, 402.*elastica*—

notes, Rec. XII, 347.

repeated tapping, Rec. XII, 451.

indica, analyses, Rec. IX, 450.*macrophylla* affected by *Galleria semipunctata*, Rec. XI, 561.

sp., fungus disease, Rec. VII, 591.

Fidia viticida, notes, Rec. VII, 697; VIII, 803, 909; X, 63; XI, 952; XII, 974.

Fidonia piniaria—

notes, Rec. VI, 567; VII, 791; VIII, 911; IX, 366; X, 570.

parasitism, Rec. VIII, 1001.

Field—

and garden crops, Northwestern India, Rec. VI, 299.

beans—

as green manure for wheat, Rec. IV, 208.
varieties, Rec. VIII, 791.

bugloss, notes, Rec. VIII, 892.

crops— (See also special crops.)

breeding, Rec. XI, 44.

chemistry, Rec. X, 348.

cooperative experiments in Ontario, Rec. VI, 419; IX, 317; X, 36, 1034.

culture in France, Rec. IX, 551.

enemies, Rec. X, 170.

experiments in Bengal, Rec. V, 448.

experiments in Canada, Rec. V, 623.

fertilizer experiments, Rec. X, 42; XII, 442.

grown in the Central Provinces, India, Rec. VII, 122.

in Ontario, area and yield, Rec. VI, 419.

irrigation, Rec. VII, 258.

of Nebraska, diseases, Rec. XI, 468.

protecting from insects and fungi, Rec. XI, 959.

resistance to drought, Rec. V, 345, 621.

treatment of diseases, Rec. X, 97.

culture, handbook, Rec. XI, 483.

curing *v.* drying on racks for clover and alfalfa, Rec. IX, 439.

experiments— (See also special crops.)

at Borsbeke-lez-Alost, Belgium, Rec. VII, 765; VIII, 402.

Ghent, Rec. VIII, 974.

Grignon, France, Rec. V, 1030; VI, 141; VII, 581.

Poppelsdorf, Germany, Rec. VII, 581.

Rothamsted, Rec. VIII, 443; IX, 349.

cooperative, in Belgium, Rec. III, 656; V, 232; VI, 295; VIII, 308; IX, 349; XI, 239.

cooperative, in Germany, Rec. III, 268.

in England, Rec. VIII, 974; IX, 43, 133; XI, 240.

Great Britain, Rec. VII, 578.

India, Rec. VII, 954; VIII, 126, 127.

Lorraine, Rec. IV, 315.

New South Wales, Rec. IX, 133.

Norway, Rec. VI, 543.

Wales, Rec. VIII, 126.

methods, Rec. X, 955.

notes, Rec. XII, 337.

physical factors in, Rec. IV, 455.

flowers and cereals, Rec. IX, 526, 643.

mice, destruction, Rec. V, 345, 730, 1104; X, 322.

mouse, louse, Rec. II, 609.

peas—

analyses, Rec. V, 875.

as a forage crop, Rec. XII, 45.

soil renovators, Bul. 2, I, 23.

Canada, analyses, Rec. VIII, 426, 508; XI, 436, 777.

Field—Continued.

peas—continued.

Canada, culture experiments, Rec. V, 171; VII, 120; VIII, 781; IX, 41; X, 430; XI, 339.

Canada, fertilizer experiments, Rec. VI, 293.

Canada, notes, Rec. V, 871; VII, 121.

Canada, varieties, Rec. X, 483.

culture, Rec. X, 432, 542.

culture experiments, Rec. III, 85.

experiments with Nitragin, Rec. XI, 516.

Golden Vine, composition and yield, Rec. XII, 740.

Golden Vine, digestibility, Rec. XII, 778.
notes, Rec. XI, 339.

root system, Rec. XII, 517.

varieties, Rec. II, 156, 396; V, 178, 577, 679, 871, 874; VIII, 904; IX, 341; XII, 229, 329, 630.

pine in New Jersey, Rec. IX, 651.

tests for determining fertilizer requirements, Rec. X, 623.

vole and its natural enemies, Rec. V, 740.

v. pot experiments, Rec. VII, 75.

pot experiments with crude phosphates
Rec. V, 819.

Fields—

and lawns, irrigation, Rec. X, 697.

meadows, alpine, Rec. V, 821.

woods, temperature and moisture of air,
Rec. X, 930.

Fiery ground beetle—

as an enemy of caterpillars, Rec. V, 206.

notes, Rec. IV, 58; V, 499.

Fig—

and date wines, Rec. VI, 869.

beetle, notes, Rec. V, 498; VIII, 417.

biology and cultivation, Rec. VI, 143.

branch borer, notes, Rec. XI, 173.

borer, notes, Rec. V, 328; VI, 235; IX, 1065.

dicicism as related to caprification, Rec. XI, 548.

disease, notes, Rec. XII, 858.

diseases, Rec. V, 732.

eater, notes, Rec. VIII, 904; X, 458, 569.

Indian—

chemical analysis, Rec. VII, 687.

rot, Rec. X, 59.

mildew in Campania, Rec. XI, 59.

ornamental, notes, Rec. V, 402.

red rust, notes, Rec. V, 498.

scale—

armored, notes, Bul. 2, I, 176.

notes, Rec. X, 972.

soils, analyses, Rec. V, 286; VI, 794.

white Adriatic, curing, Rec. VI, 728.

yellow rust, notes, Rec. V, 498.

Figs—

analyses, Rec. IV, 920; V, 501; X, 754.

as affected by unusual cold, Rec. XI, 1041.

California Smyrna, Rec. XII, 753.

caprification, Rec. IX, 950.

caprification experiments, Rec. XI, 950.

culture, Rec. II, 659; III, 107, 709; V, 496, 587, 873.

Figs—Continued.

- culture—
 - and curing, Rec. IX, 135.
 - in California, Rec. VI, 728.
 - Gulf States, Rec. IX, 136.
 - Tunis, Rec. VIII, 701.
 - under glass, Rec. XII, 346.
- curing, Rec. VI, 220, 728.
- fertilizing constituents, Rec. IV, 921.
- forcing under glass, Rec. XII, 853.
- from seed, Rec. V, 827.
- grown without caprification, Rec. IV, 284.
- history, Rec. VIII, 55.
- notes, Rec. VI, 424; X, 254, 547; XII, 945.
- preparation for market, Rec. VI, 728.
- soils for, Rec. VI, 794.
- varieties, Bul. 2, I, 21, 183; Rec. II, 295, 372, 426, 556, 642, 659; III, 361, 686; V, 190, 301, 496, 587, 873; VI, 55, 142, 220, 819, 820; VII, 215, 405; VIII, 407, 702, 889.
- winter protection, Rec. II, 660.

Filaria—

- bancrofti*, life history, Rec. XII, 68, 660.
- capitellata*, notes, Rec. IX, 1092.
- involuta*, notes, Rec. IX, 1092.
- labiata papillosa*, notes, Rec. IX, 294.
- lachrymalis* in the eyes of domestic animals, Rec. V, 79.
- nocturna* in *Culex*, Rec. XII, 575.
- papillosa* in the eyes of domestic animals, Rec. V, 79.
- recta*, notes, Rec. IX, 1092.
- tricuspsis*, notes, Rec. IX, 1092.

Filaria, propagation by mosquitoes, Rec. XII, 790.

Filbert disease, notes, Rec. IV, 876; V, 400.

Filberts—

- food value, Rec. XII, 78.
- notes, Rec. XII, 237.
- parasites, Rec. IX, 1062.
- varieties, Rec. II, 295, 642; IV, 556; VII, 215; VIII, 889.

Films, fixing to cover glasses, Rec. XI, 714.

Filter—

- apparatus, Rec. X, 315.
- Chamberland—
 - description, Rec. V, 215.
 - experiments with, Rec. V, 650.
 - for sterilizing wines, Rec. V, 214.
- flask—
 - description, Rec. VIII, 668.
 - new, Rec. X, 608.
- paper reaction, Rec. X, 315.

Filter-press—

- cake as a fertilizer, Rec. XII, 933.
- for laboratories, Rec. XII, 309.

Filter pump, new form, Rec. IV, 782.

Filtering—

- apparatus, Rec. IX, 723.
- apparatus, automatic, Rec. IV, 314.
- bulbs, dust proof, Rec. XI, 714.

Filters—

- asbestos, Rec. XII, 419.
- mechanical, Rec. IV, 870.
- mineral—
 - action on microbic solutions, Rec. IV, 314.
 - passage of dissolved substances through, Rec. IV, 290.

Filters—Continued.

- sand—
 - for milk, Rec. IV, 988; V, 1043, 1047.
 - water, Rec. VII, 23.
 - sponge, for milk, Rec. V, 1043.
- Filtration—
- of fruit wine, Rec. XI, 157.
 - juices and sirups through asbestos, Rec. V, 349.
 - water, Rec. VII, 23, 290; VIII, 482.
 - water for creameries, Rec. IV, 317.

Finance, farmers' interest, Rec. IX, 296.

Fine bent grass, notes on awned seed, Rec. II, 488.

Fine top grass for meadows and pastures, Rec. II, 238.

Fine top, notes, Bul. 2, II, 84.

Finger-and-toe disease. (See CABBAGE AND TURNIP CLUB ROOT.)

Fingered colley, analyses, Rec. VI, 630.

Finland—

- agricultural colleges in, Rec. IX, 704.
- Department of Agriculture, report, Rec. X, 798.
- Finnish Agricultural Society, Imperial, Rec. V, 411.

Fiorin—

- analyses, Rec. II, 487.
- culture experiments, Rec. X, 244.
- notes, Rec. II, 487, 600; V, 910.

Fiorinia fioriniae camelliae, notes, Rec. VI, 235.

Fir—

- balsam, notes, Rec. IV, 655; V, 54.
 - beetle, branded, Rec. IX, 262.
 - Douglas—
 - culture experiments, Rec. VII, 774.
 - disease, Rec. XI, 262.
 - for reforestation in France, Rec. XII, 757.
 - in Great Britain, Rec. VIII, 314.
 - notes, Rec. II, 143; VII, 776; XI, 747.
 - occurrence of root suckers, Rec. XI, 940.
 - estimation of timber, Rec. XI, 653.
 - grafting in open air, Rec. V, 1018.
 - in mixed forests, Rec. XII, 653.
 - leaves, browning and reddening, Rec. V, 257.
 - mite, notes, Rec. VII, 230.
 - new species from Arizona, Rec. VIII, 315.
 - Nordman's, notes, Rec. IV, 655; V, 54.
 - red—
 - analyses, Rec. XI, 314.
 - ash analyses, Rec. XII, 653.
 - resin ducts and strengthening cells, Rec. XII, 827.
 - Scotch, for ornamental planting, Rec. VII, 868.
 - seedlings, insect injury, Rec. VII, 775.
 - seeds, harvesting, Rec. VII, 508.
 - silver—
 - form of buds, Rec. V, 1099.
 - notes, Rec. V, 54; VI, 223.
 - white, canker, Rec. X, 652.
- Fir tree—
- oil—
 - as an insecticide, Rec. IX, 576.
 - for spotted mites, Rec. III, 92.
 - root-louse, notes, Rec. X, 374.

Fir trees—

as affected by—

drought, Rec. VIII, 604.

lime rings, Rec. IX, 844.

sulphurous acid, Rec. VII, 775.

care and culture, Rec. VIII, 604.

curving during growth, Rec. VIII, 28.

disease, Rec. V, 257.

growth, Rec. VII, 774.

influence of—

age on germination of seed, Rec. VI, 427.

climate on growth, Rec. VII, 508.

injury by—

fumes from iron works, Rec. VIII, 703.

smoke, Rec. VIII, 891.

Lachnus sp. on, Rec. VII, 968.

new disease, Rec. IX, 960.

notes, Rec. II, 143; VI, 993.

planting, Rec. VII, 961.

red wood of, Rec. VII, 961.

resistance to smoke, Rec. X, 644.

Fire blight—

notes, Rec. XII, 271, 399.

treatment, Rec. XII, 354.

Fire warden law in Minnesota, Rec. XI, 459.

Fires, forest. (See FOREST FIRES.)

Fireweed, root system, Rec. IV, 46.

Fish—

analyses, Rec. III, 127; V, 165; XI, 719.

and Fisheries Commission, report, Rec. X, 324, 325.

potash, analyses, Bul. 2, I, 40.

as food, Rec. IX, 872; X, 678; XI, 777.

canned, corrosion of cans, Rec. XII, 476.

chum, analyses, Rec. II, 353, 730.

composition, Rec. X, 481.

cooked, analyses, Rec. IX, 163.

crow, examination of stomachs, Rec. VII, 842.

culture stations in Italy, Rec. IV, 240.

culture—

in France, Rec. VII, 337, 524.

Germany, Rec. XI, 484.

Ontario, Rec. IX, 926.

ponds, Rec. V, 823.

manual, Rec. X, 325.

report, Rec. V, 435.

station at Fecamp, Rec. V, 435.

dried, analyses, Bul. 2, I, 190; Rec. II, 232, 280; IV, 902.

enemies, Rec. IX, 926.

feeding experiments, Rec. III, 262.

fertilizer, analyses, Rec. V, 621; 777.

food, of Pennsylvania, Rec. IX, 925.

for tobacco, Rec. V, 865.

fresh, analyses, Rec. IV, 59.

fresh water—

biological stations for, Rec. IV, 935.

parasitic worms, Rec. VII, 987.

fungus diseases, Rec. VII, 987.

ground—

analyses, Rec. II, 232, 280, 581; III, 162, 299; IV, 25, 26; V, 288, 290; VI, 287, 396, 797; VII, 111, 195, 668, 757, 940; VIII, 389, 877, 966; IX, 538, 636, 825, 872, 934, 939; X, 230, 426, 428, 1081; XI, 830; XII, 129, 840, 931, 933.

for tobacco, Rec. IX, 546.

Fish—Continued.

guano—

methods of analysis, Rec. IV, 692.

v. nitrate of soda for barley, Rec. X, 954.

nitrate of soda for sugar beets, Rec. X, 954.

guanos, analyses, Rec. II, 101; III, 592; IV, 449; V, 575, 621, 727, 801, 802; VII, 380; XI, 79.

hatchery fungus, notes, Rec. IV, 50.

meal—

analyses, Rec. XI, 79.

as a feeding stuff, Rec. III, 928; V, 349.

for steers, Rec. VII, 708; VIII, 521.

ground, for cows, Rec. VI, 657.

moths, notes, Bul. 2, I, 179.

new parasites, Rec. IX, 1031.

of Death Valley, California, Rec. V, 90.

oil emulsion—

for horn fly, Rec. V, 206.

preparation, Rec. V, 206.

oil soap, preparation, Rec. IV, 840.

oil soaps—

as insecticides, Rec. II, 164, 416.

preparation and use, Rec. II, 164.

pomace, analyses, Rec. XII, 531.

ponds, poisoning, Rec. VII, 804.

preservation with salts, Rec. XII, 776.

preserved, analyses, Rec. IV, 59.

press cake as a feeding stuff, Rec. III, 579.

scrap—

analyses, Rec. III, 444, 523, 536; IV, 25, 26; V, 861; XI, 39.

available phosphoric acid in, Rec. V, 288.

waste, analyses, Rec. II, 5; III, 162, 864; VII, 294.

Fisheries, injury due to waste from factories, Rec. VIII, 1015.

Fishery Congress, proceedings, Rec. XI, 80.

Fishhawk, notes, Rec. VI, 695.

Fishing industry of Cape Colony, Rec. VII, 337.

Fistula—

in horses and mules, Rec. IV, 75; XII, 292.

milk, Rec. XI, 288.

notes, Rec. VI, 245.

treatment with protargol, Rec. XI, 496.

Fistulina hepatica, notes, Rec. V, 611; VI, 728; X, 551.

Five-fingers—

mildew, notes, Rec. IV, 51.

notes, Rec. XII, 827.

Flagella—

method of staining, Rec. VI, 487; IX, 628.

of bacteria, Rec. XII, 722.

Flammula—*penetrans*, notes, Rec. IX, 960.*spumosa*, notes, Rec. IX, 960.

Flask for rapid distillation with steam under pressure, Rec. VIII, 862.

Flasks, pipettes, etc., apparatus for calibration, Rec. VII, 91.

Flat lands of North Germany, soils, Rec. XI, 434.

Flat lands of Prussia, soils, Rec. XI, 435.

Flat pea—

analyses, Rec. IV, 647, 732; V, 171, 782; VI, 294, 406; VII, 296, 954; VIII, 426; IX, 873; XI, 436.

Flat pea—Continued.

- as a forage plant, *Rec. V*, 346, 719; *VI*, 898.
- green manure for barley, *Rec. X*, 836.
- culture experiments, *Rec. IV*, 39, 557, 645, 661, 814, 871; *V*, 39, 171, 718, 808, 925, 1098; *VI*, 35, 406, 418, 542, 982, 984; *VII*, 27, 295, 497; *VIII*, 124, 306, 400, 401, 596, 687, 884, 970; *IX*, 41, 243; *X*, 245.
- germination, *Rec. VIII*, 233.
- hay, analyses, *Rec. X*, 276.
- in rotation, *Rec. IX*, 347.
- notes, *Rec. IV*, 647; *V*, 407, 448, 623, 652, 719, 808, 809; *VI*, 96, 215, 294, 634, 721, 808, 887; *VII*, 954; *X*, 245; *XI*, 219; *XII*, 133, 329, 936.

Flat scale, parasites, *Rec. III*, 546.Flat turnips, varieties, *Rec. VI*, 416.*Flavolus striatulus*, notes, *Rec. VIII*, 867.Flavoring extracts, analyses, *Rec. XII*, 79.

Flax—

- adaptability—
 - to California, *Rec. IV*, 285.
 - Oregon, *Rec. IV*, 285.
- and hemp, textile strength and hygroscopicity, *Rec. V*, 726.
- ash—
 - analyses, *Rec. VIII*, 586.
 - constituents, *Rec. III*, 373.
- Belgian, culture experiments, *Rec. V*, 178.
- brulure, *Rec. X*, 652.
- condition, *Rec. III*, 326.
- continuous cropping, *Rec. VIII*, 687.
- cultivation—
 - and preparation for market, *Rec. VII*, 764.
 - in Ireland, *Rec. VI*, 985.
- culture, *Rec. III*, 594, 875; *V*, 134; *VII*, 31; *VIII*, 118, 306, 975; *IX*, 643, 748, 830, 899; *X*, 635, 736; *XI*, 443.
- culture—
 - experiments, *Rec. III*, 82, 159, 360; *IV*, 38, 251, 825; *V*, 291, 333; *VI*, 296, 807, 887; *VII*, 122; *VIII*, 208, 689; *XI*, 833; *XII*, 536, 745.
 - in Alaska, *Rec. XII*, 630.
 - America, *Rec. X*, 541.
 - Austria, *Rec. VII*, 121.
 - Belgium, *Rec. X*, 43.
 - Europe, *Rec. II*, 496.
 - Europe and America, *Rec. X*, 541.
 - foreign countries, *Rec. IV*, 285.
 - Germany as related to Russian flaxseed, *Rec. X*, 955; *XI*, 145.
 - Holland, *Rec. VI*, 216.
 - Holland and Belgium, *Rec. X*, 43.
 - Russia, *Rec. XI*, 443.
 - Russia and Germany, *Rec. X*, 955.
 - the United States, *Rec. I*, 299; *IV*, 285; *X*, 541.
 - on the Continent, *Rec. VII*, 764.
 - treatise, *Rec. II*, 496.
- development as affected by soil moisture, *Rec. IX*, 819.
- diseases, *Rec. II*, 496; *VII*, 39.
- draft on soil, *Rec. VIII*, 586; *IX*, 446.
- effect of fertilizers on, *Bul. 2, II*, 83.
- experiments with—
 - Alinit, *Rec. X*, 1012.
 - fungicides, *Rec. II*, 495.

Flax—Continued.

false—

- cake from seed of, *Rec. IV*, 316.
- notes, *Rec. IV*, 167, 699; *VII*, 135, 588; *VIII*, 703, 866, 892; *IX*, 143; *X*, 760.

fertilizer experiments, *Bul. 2, II*, 83; *Rec. II*, 496; *VI*, 403, 985; *VII*, 209, 579; *XI*, 42.

fiber—

- microscopy and chemistry, *Rec. VIII*, 306.
- notes, *Rec. X*, 725.

field experiments, *Rec. II*, 7, 476, 496, 606.for seed and fiber, *Rec. II*, 476; *VI*, 982.fungicides for, *Rec. II*, 496.germination tests, *Bul. 2, I*, 30.growing with wheat, *Rec. XI*, 644.hulls, analyses, *Rec. XII*, 273.industry in Sweden, *Rec. XI*, 240.life history, *Rec. XII*, 313.

meal—

- analyses, *Rec. IX*, 809; *XI*, 528; *XII*, 877.
- Cleveland, analyses, *Rec. XI*, 279, 381, 777, 882, 971.

Cleveland and fine rowen hay, digestibility, *Rec. XI*, 874.digestibility, *Rec. XI*, 965.moisture content and strength, *Rec. V*, 441.

New Zealand—

distribution, *Rec. III*, 597.report on, *Rec. V*, 92, 94.nitrate of soda *v.* sulphate of ammonia for, *Rec. V*, 233.notes, *Rec. V*, 623, 871, 910.preparation, *Rec. X*, 396.proteids of, *Rec. IV*, 933.quality of fiber from California-grown, *Rec. II*, 476.retting, *Rec. XI*, 240.retting experiments, *Rec. X*, 736; *XI*, 812.root system, *Rec. XI*, 215; *XII*, 517.Russian, analyses, *Rec. II*, 329.rust, notes, *Rec. VII*, 694; *XII*, 1056.rusted, coloring, *Rec. VII*, 512.

seeding at different—

dates, *Rec. VII*, 119, 398; *IX*, 830; *X*, 836.depths, *Rec. VII*, 119, 398.rates, *Rec. IX*, 830, 833; *X*, 836; *XI*, 42.soil preparation, *Rec. VII*, 32.station in Austria, *Rec. V*, 353; *VII*, 299.thickness of seeding, *Rec. V*, 679.varieties, *Rec. II*, 476; *III*, 404, 703, 802, 869;*IV*, 411; *V*, 679; *VI*, 44, 403; *VII*, 121, 209,396; *IX*, 833; *X*, 736; *XII*, 329.water requirement, *Rec. XII*, 627.wild, notes, *Rec. IV*, 591; *V*, 529.

yield—

in 1892, *Rec. IV*, 578.of fiber, *Rec. II*, 476.

Flaxseed—

albuminoids in, *Rec. IV*, 933.analyses, *Rec. IV*, 733; *VI*, 1008; *X*, 678, 716; *XI*, 883.and linseed oil for cows, *Rec. IX*, 683.globulins of, *Rec. IV*, 934.mucilage layer, *Rec. V*, 254.production, *Rec. III*, 326.production in Russia, *Rec. X*, 244.studies, *Rec. X*, 760.

Flaxseed—Continued.

v. linseed cake for cows, *Rec.* **XI**, 578.

linseed meal for cows, *Rec.* **III**, 785.

Flea beetle— (*See also* HALTICA.)

black—

notes, *Rec.* **II**, 718; **VI**, 315.

Paris green for, *Rec.* **XII**, 229.

broad-striped, notes, *Rec.* **VI**, 150.

injuries, *Rec.* **X**, 571.

on purslane, *Rec.* **X**, 1063.

pale-striped, notes, *Rec.* **VI**, 836; **XII**, 362.

red-headed, notes, *Rec.* **VIII**, 507.

red-legged, notes, *Rec.* **V**, 328.

Southern, notes, *Rec.* **VIII**, 136.

steel-blue, *Rec.* **IX**, 858.

striated, notes, *Rec.* **IV**, 254, 416.

tobacco—

notes, *Rec.* **III**, 860; **V**, 685; **VIII**, 136; **X**, 569; **XI**, 365.

remedies, *Rec.* **XI**, 471.

triangular, notes, *Rec.* **II**, 734; **III**, 784.

turnip, notes, *Rec.* **II**, 5; **III**, 198; **IX**, 856.

two-striped, notes, *Rec.* **V**, 311; **VI**, 315.

wavy-striped, notes, *Rec.* **III**, 46, 54, 97, 784.

Flea beetles—

description and remedies, *Rec.* **III**, 403, 889; **IV**, 58.

insecticides, *Rec.* **II**, 415, 495; **IV**, 416.

notes, *Rec.* **II**, 71, 101, 718, 734; **IV**, 58, 840; **V**,

101, 498, 499, 593; **VI**, 65; **VII**, 315; **VIII**, 138;

X, 1061; **XI**, 273; **XII**, 862.

Fleabane—

analyses, *Rec.* **IX**, 479.

notes, *Rec.* **V**, 398; **X**, 354.

root system, *Rec.* **IV**, 46.

Fleas— (*See also* PULEX.)

ground remedies, *Rec.* **XI**, 174.

notes, *Rec.* **IX**, 253, 254; **X**, 766; **XI**, 263.

remedies, *Rec.* **VIII**, 64, 68; **IX**, 62, 775.

systematic position, *Rec.* **XI**, 173.

Fleece, mountain, notes, *Rec.* **IV**, 654.Flensburger separator, tests, *Rec.* **VI**, 344.

Flesh—

extract and flesh peptone, analyses, *Rec.* **VII**, 336.

fly—

as an enemy of the locust, *Bul.* **2**, **II**, 93.

notes, *Rec.* **VIII**, 145; **XI**, 263.

foods, handbook, *Rec.* **XII**, 676.

in feces, determination, *Rec.* **IX**, 474.

meal—

analyses, *Rec.* **II**, 504; **IV**, 475.

effect on milk production, *Rec.* **VII**, 708.

Liebig's, value in agriculture, *Rec.* **VI**, 521.

notes, *Rec.* **V**, 801.

v. cut fresh bones for hens, *Rec.* **VIII**, 425.

Fleur-de-lis, notes, *Rec.* **IV**, 654.Flies— (*See also* FLY.)

as related to propagation of cholera, *Rec.* **IV**, 695.

breeze, notes, *Rec.* **XII**, 272.

destruction by house crab spider, *Rec.* **X**, 570.

horse, *Rec.* **III**, 46, 792; **VIII**, 68, 909; **IX**, 63;

X, 568, 654; **XI**, 263.

house, remedies, *Rec.* **VIII**, 68; **IX**, 63.

Flies—Continued.

notes, *Rec.* **IX**, 63, 253; **XI**, 263.

remedies, *Rec.* **XII**, 898.

Floats—

analyses, *Bul.* **2**, **I**, 182; *Rec.* **VI**, 287; **VII**, 295, 854; **VIII**, 563, 584; **IX**, 919; **X**, 919; **XI**, 39, 917, 1024; **XII**, 717, 907.

for corn, *Rec.* **IV**, 804; **V**, 779, 1071.

cotton, *Rec.* **V**, 174, 976.

v. phosphates for cotton, *Rec.* **II**, 548.

Thomas slag for oats, *Rec.* **I**, 147.

Flocculation—

of soils, *Rec.* **III**, 301.

soils by lime, *Rec.* **VI**, 282.

Flood—

conditions in the James River Valley, *Rec.* **XI**, 430.

of January, 1880, in St. Kitts, *Rec.* **XI**, 430.

planes of the Mississippi River, *Rec.* **V**, 1086.

Flooding—

for destruction of—

forest insects, *Rec.* **VIII**, 712.

injurious animals, *Rec.* **IX**, 530.

Floods—

and flood problems, *Rec.* **XI**, 620.

forests in Prussia, *Rec.* **VIII**, 794.

as affected by forests, *Rec.* **XI**, 432.

effect on forests of Bohemia, *Rec.* **VI**, 144.

in Brisbane River, mitigation, *Rec.* **XII**, 797.

Texas, *Rec.* **XII**, 520, 521.

water courses, prediction, *Rec.* **V**, 1086.

mitigation and forestation of mountains, *Rec.* **IV**, 695.

of the Mississippi River, *Rec.* **V**, 1086; **IX**, 198, 816.

protection against, by forests, *Rec.* **X**, 443.

river, *Rec.* **IX**, 424.

Flora—

arboreal—

of Java, *Rec.* **VII**, 278; **VIII**, 291.

maritime Belgium, *Rec.* **VIII**, 605.

arborescent, of United States, nomenclature, *Rec.* **IX**, 452.

bacterial—

of foremilk, *Rec.* **VII**, 174; **VIII**, 537.

the Atlantic Ocean, *Rec.* **V**, 663.

early, of the Truckee Valley, *Rec.* **VII**, 92.

fungus, of Hanover, *Rec.* **VI**, 278.

mycological, of Montpellier, *Rec.* **VI**, 647.

of a prairie State, *Rec.* **VII**, 468.

Alabama, *Rec.* **VIII**, 109.

Black Hills, South Dakota, *Rec.* **VIII**, 291.

British India, *Rec.* **VII**, 839.

Europe, spontaneous hybrids, *Rec.* **XI**, 120.

Indian Territory, contributions, *Rec.* **IV**, 580.

Kansas, *Rec.* **X**, 22.

Lyon County, Iowa, *Rec.* **XII**, 732.

Malay Peninsula, *Rec.* **VI**, 196.

Maryland, *Rec.* **XII**, 1098.

North America, geological origin, *Rec.* **VI**, 617.

North Carolina, *Rec.* **XI**, 909.

North Dakota, *Rec.* **XI**, 817.

North Louisiana, *Rec.* **V**, 285.

Northern United States and Canada, *Rec.* **VIII**, 291.

Flora—Continued.

- of Ohio, Rec. V, 280; XII, 615.
- Oklahoma, Rec. XII, 312.
- Queensland, Rec. VI, 279, 617; VII, 278; VIII, 291, 671.
- sandhills of Nebraska, Rec. VII, 370.
- Southern States, Rec. IX, 525.
- southwestern Kansas, Rec. VIII, 291.
- Sweden, origin, Rec. VIII, 471.
- Tres Marias Islands, Rec. XI, 428.
- West Virginia, Rec. IV, 642; VII, 839.
- Wyoming, Rec. VIII, 291, 956.

"Flora Vita," analyses, Bul. 2, II, 107; Rec. III, 162.

Floral—

- colors, laws, Rec. VI, 993.
- designs in public parks, Rec. VII, 506.
- galls, studies, Rec. VII, 513, 694.
- organs, origin of names, Rec. VII, 188.

Florence, Italy—

- Entomological Station at, Rec. IV, 237.
- Experiment Station at, Rec. IV, 235.
- Royal School of Pomology and Horticulture at, Rec. IV, 330.

Floriculture—

- American, Rec. XII, 347.
- chemical tripod in, Rec. VIII, 409.
- in Oregon, Rec. V, 827.
- manual, Rec. IX, 756; XII, 152.
- statistics, Rec. II, 768.

Florida—

- beggar weed—
 - culture, Rec. X, 542.
 - notes, Rec. XI, 339.
- freezes, Rec. VII, 845.
- horse leach, Rec. VIII, 626.
- land tortoise, insects in burrows, Rec. VI, 440.
- phosphate. (See PHOSPHATES.)
- velvet bean, culture, Rec. XI, 241.

Flour—

- acidity, Rec. XII, 676.
- adulteration, Rec. X, 1089; XI, 211, 278, 482, 971.
- analyses, Rec. II, 582; VIII, 196, 719, 1003; X, 874; XI, 769, 821, 882; XII, 91, 586.
- analytical studies, Rec. X, 821.
- and bread—
 - examination, Rec. VI, 190.
 - fat determination, Rec. V, 439, 647.
 - hygienic studies, Rec. VI, 468; VII, 336, 425, 616.
- and cereals, microscopic examination, Rec. IX, 526.
- meal moths, parasites, Rec. IX, 855.
- baking quality, Rec. VII, 803.
- beetle—
 - broad-horned, Rec. IX, 65.
 - catorama, notes, Rec. VIII, 610.
 - confused, notes, Rec. VIII, 610; IX, 65.
 - notes, Rec. VII, 515.
 - rust-red, notes, Rec. VII, 515; VIII, 610; IX, 65; X, 973.
 - slender-horned, notes, Rec. VIII, 610.
 - small-eyed, Rec. IX, 368.
 - wee, notes, Rec. IV, 417.
- beetles, remedies, Rec. VIII, 241.
- carbohydrates, Rec. VIII, 664.

Flour—Continued.

- Chenopodium seeds in, Rec. V, 823.
- composition as affected by grinding, Rec. VIII, 80.
- copper content, Rec. II, 324.
- detection of—
 - sand in, Rec. V, 823.
 - sawdust, Rec. XI, 905.
- determination of—
 - acidity, Rec. XII, 823.
 - ergot in, Rec. V, 655; VII, 425, 523; X, 20, fineness, Rec. X, 117.
 - gluten in, Rec. VIII, 155; XII, 1007.
 - starch in, Rec. X, 314.
- ergot in, Rec. VII, 425, 523.
- errors in analysis, Rec. VI, 15.
- examination, Rec. V, 433, 654, 664; VI, 15, 377; VII, 652.
- examination for bread making, Rec. XI, 79.
- from Kafir corn, Rec. VII, 803.
- gluten content and baking properties, Rec. V, 257; X, 79.
- impurities, Rec. XI, 79.
- low-grade, chemical study, Rec. VIII, 254.
- method of testing quality, Rec. VII, 745.
- methods of analysis, Rec. IV, 873; V, 127, 433; X, 19.
- microscopic examination, Rec. V, 127; VII, 745.
- middlings, analyses, Rec. XII, 71.
- mill pests, Rec. V, 1085.
- mill sweepings, analyses, Rec. VIII, 719.
- mites, notes, Rec. IX, 65.
- moth, Mediterranean—
 - distribution, Rec. IV, 668.
 - notes, Rec. II, 5; III, 359; VII, 515, 595, 596, 789; VIII, 417, 610; IX, 663, 1065; XII, 861.
 - remedies, Rec. VIII, 241.
- nutritive value, Rec. VIII, 155, 923.
- of legumes and cereals, albuminoids, Rec. X, 116.
- old, as affected by fresh gluten, Rec. X, 884.
- potato, Rec. X, 481.
- production, distribution, Rec. IV, 847.
- sweepings, analyses, Rec. IV, 567.
- testing by chemical methods, Rec. XI, 1100.
- used in—
 - Belgium, composition, Rec. X, 79.
 - China and Japan, statistics, Rec. IX, 980.
 - Italy, classification, Rec. IX, 980.
- value for bread as affected by gluten content, Rec. X, 79.
- volume and weight, Rec. V, 927.
- wheat. (See WHEAT FLOUR.)

Flower—

- and vegetable seeds, culture for market, Rec. VI, 548.
- bulbs, culture in Washington, Rec. XI, 453, 1049.
- buds of fruit trees and shrubs, development of structure, Rec. X, 417.
- culture in Holland, Rec. XI, 938.
- farms of California, Rec. XI, 1049.
- gardens of Japan, Rec. XI, 1049.
- pots—
 - paper, Rec. II, 509.
 - use, Rec. III, 107.

Flower—Continued.

seasons, philosophy, *Rec. VI*, 694.

seeds—

germination test, *Rec. V*, 628.

time and method for sowing, *Rec. VII*, 688.

Flowering—

and fruiting as affected by latitude, *Bul. 2*, 1, 105.

bulbs, culture in North Carolina, *Rec. VI*, 547.

influence of pruning on, *Rec. V*, 820.

of bamboo, *Rec. VII*, 92.

plants, *Rec. V*, 253.

sugar cane, effect on sugar content, *Rec. XI*, 146.

plants—

and ferns, *Rec. VIII*, 749.

notes, *Rec. VII*, 587.

spring, in vicinity of Paris, *Rec. VII*, 372.

studies, *Rec. VI*, 487.

under colored screen, *Rec. VI*, 694.

Flowerless plants, *Rec. IX*, 726.

Flowers—

and fruits—

artificial coloration, *Rec. V*, 648.

variegation, *Rec. VII*, 217.

and insects, *Rec. VIII*, 70; *X*, 22.

and insects—

in Great Britain, *Rec. VII*, 231.

interrelations, *Rec. VI*, 787, 874; *VII*, 656, 839.

annual, for home grounds, *Rec. XI*, 49.

anomalous, studies, *Rec. IX*, 1027.

attracting insects, *Rec. IX*, 28, 158, 768; *X*, 68, 166.

bacteria in, *Rec. XI*, 713.

biology, *Rec. IX*, 330; *X*, 320.

brown coloring matter, *Rec. XII*, 912.

care and management, *Rec. IX*, 952.

chart of correct colors, *Rec. VII*, 309.

classification of odors, *Rec. XII*, 451.

color, nomenclature, *Rec. XII*, 1046.

coloring matter, *Rec. XI*, 29; *XII*, 113.

coloring matter, chemistry, *Rec. V*, 1026.

colors, *Rec. VIII*, 380.

colors, as affected by—

chemicals, *Rec. XII*, 519.

cyanid fumes, *Rec. VII*, 506.

soils, *Rec. IX*, 330.

colors, as related to bees, *Rec. XI*, 271.

cross fertilization by insects, *Rec. VII*, 564.

culture, *Rec. XII*, 754.

culture—

and varieties, *Rec. V*, 873.

for market, *Rec. X*, 640.

cut—

culture, *Rec. X*, 640.

production, *Rec. XII*, 152.

edible, notes, *Rec. XI*, 482.

effect of removal on nitrogen assimilation of legumes, *Rec. XI*, 516.

emasculating, *Rec. VIII*, 566.

extraction of perfume, *Rec. VI*, 345; *VII*, 586; *IX*, 25, 196.

fertilization, *Rec. XI*, 709, 909.

fertilization by insects, *Rec. VIII*, 108; *X*, 647.

flowering and change of color, *Rec. X*, 440.

Flowers—Continued.

for food, *Rec. VII*, 506.

honey, *Rec. VII*, 791.

from seed, *Rec. VIII*, 986.

fungus diseases, *Rec. IV*, 53, 54.

growing under glass in England, *Rec. XI*, 650.

growth as affected by fertilizers, *Rec. VIII*, 108.

hardy, notes, *Rec. XII*, 549.

home culture, *Rec. IX*, 756.

improvement in varieties, *Rec. X*, 356.

influence of light on, *Rec. V*, 649.

insect visitors, *Rec. X*, 519.

laws regulating formation of sex, *Rec. XI*, 910.

natural history of, *Rec. V*, 1097.

odor, *Rec. VIII*, 55.

of Cruciferae and Fumariaceae, anatomy, *Rec. V*, 923; *VII*, 748.

crucifers, notes, *Rec. VIII*, 670.

of sulphur for—

begonia rust, *Rec. VII*, 311.

cranberry diseases, *Rec. III*, 307.

cucumber mildew, *Rec. V*, 193.

grain rusts, *Rec. IV*, 955.

grape powdery mildew, *Rec. VII*, 788.

Lima bean mildew, *Rec. V*, 878.

red spiders, *Rec. VII*, 593.

sweet-potato diseases, *Rec. III*, 307.

wheat rust, *Rec. III*, 286.

of the sugar beet, *Rec. V*, 650.

opening and closing, *Rec. VI*, 873.

perfume—

growing for, *Rec. XII*, 754.

production of, *Rec. IV*, 748.

photographing, *Rec. XI*, 154.

spectroscopic observations on, *Rec. V*, 1027.

transpiration during development, *Rec. III*, 749.

variation, *Rec. V*, 539.

variation, significance of, *Rec. VIII*, 108.

zymorphic, *Rec. VI*, 280.

Flue—

ashes, analyses, *Rec. VI*, 402.

dust, analyses, *Rec. II*, 5.

Fluids—

extraction, *Rec. IX*, 808.

flow through porous media, *Rec. XI*, 518.

Fluke. (*See* DISTOMUM.)

Flukes of cattle, notes, *Rec. III*, 502.

Fluorid of sodium as a preservative for milk, *Rec. II*, 331.

Fluorids, effect on yeast fermentation, *Rec. III*, 553, 665.

Fluorin—

compounds—

application to soils, *Rec. III*, 502.

in germination of seeds, *Rec. III*, 502.

influence on beer ferments, *Rec. VI*, 170.

determination, *Rec. VII*, 185; *XI*, 106.

gas, utilization, *Rec. XII*, 1025.

in beer, determination, *Rec. VII*, 462.

bones and teeth, *Rec. IV*, 387; *V*, 438, 822.

superphosphates, *Rec. V*, 539.

wine, detection, *Rec. XI*, 813.

storage in the animal body on feeding sodium fluorid, *Rec. IV*, 316.

United scale. (*See* SCALE, FLUTED.)

Fly amanita, notes, *Rec. IX*, 527; *X*, 516.

Fly—(*See also* FLIES.)

bluebottle, *Rec. IX*, 63; *XI*, 263.

cluster, *Rec. IX*, 63.

fruit. (*See* FRUIT FLY.)

greenbottle, *Rec. IX*, 63.

house. (*See* FLIES.)

stable, *Rec. IX*, 63; *XII*, 82.

turnip, notes, *Rec. VI*, 317; *VII*, 413; *IX*, 74.

Flycatchers, food, *Rec. IX*, 230.

Flying-squirrel louse, *Rec. II*, 609.

Foals, fatality among, *Rec. V*, 608.

Fodder— (*See also* FORAGE.)

and seed culture, experiments, *Rec. V*, 657.

beets. (*See* BEETS, FODDER.)

cakes, determination of mustard oil in, *Rec. VIII*, 203.

coarse, function in feeding, *Rec. XI*, 772.

corn— (*See also* CORN FODDER; CORN STOVER.)

analyses, *Bul. 2*, *II*, 73; *Rec. VII*, 296, 702.

c. hay for cows, *Rec. VIII*, 930.

crops. (*See* FORAGE CROPS.)

grasses of northern hemisphere, *Rec. IX*, 833.

green—

change in composition at different periods

of vegetation, *Rec. X*, 430.

grain mixtures for, *Rec. XI*, 632.

hygienic value, *Rec. XI*, 592.

preservation, *Rec. VI*, 543.

plants. (*See* FORAGE PLANTS.)

supply and autumn catch crops, *Rec. V*, 740.

terms, glossary, *Rec. VII*, 708.

Fodders—

advantages of compressing, *Rec. XII*, 177.

determination of potash and phosphoric acid in, *Rec. IX*, 26.

pentosans in, *Rec. IX*, 225.

Fog—

city, effect on plants, *Rec. V*, 818; *VI*, 16.

dispeller, *Rec. XI*, 221.

effect on—

Egyptian cotton, *Rec. IX*, 348.

plants, *Rec. XI*, 1016.

in New York Harbor, *Rec. VIII*, 111.

studies on Mount Tamalpais, *Rec. XII*, 831, 1015.

utilization, *Rec. X*, 1018; *XI*, 222, 430.

Foggy and cloudy days, *Rec. IX*, 424.

Fogs, effect on plants, *Rec. XII*, 826.

Foliage—

and leaf scars of *Pinus rigida*, *Rec. VI*, 487.

as affected by—

Bordeaux mixture, *Rec. IX*, 961; *X*, 264.

London purple, *Rec. I*, 227.

leaves, chemistry and physiology, *Rec. V*, 127, 344.

plant, testing soils by color of, *Rec. V*, 933.

unnatural colors, *Rec. VIII*, 380.

variegated, in the Mirobolan plum tree, *Rec. V*, 1099.

Folsom grass, culture experiments, *Rec. VI*, 294

Fomes tinctoria, notes, *Rec. VII*, 278.

Food—

acid, effect on the organism and skeleton, *Rec. VII*, 795.

Food—Continued.

adulteration, *Rec. I*, 237; *VI*, 331, 573; *VII*, 523; *IX*, 982; *X*, 80, 510, 872; *XI*, 184, 312, 970.

adulteration—

in England, *Rec. IV*, 223.

Europe, *Rec. XII*, 780.

Massachusetts, *Rec. XII*, 814.

legislation regarding, *Rec. III*, 816; *V*, 258; *VII*, 756; *IX*, 786.

need of statistics, *Rec. VI*, 573.

special report on, *Rec. XII*, 814.

and albuminoid requirements of man, *Rec. V*, 1031.

diet, *Rec. VII*, 522, 985.

diet of invalids, *Rec. VIII*, 720.

feeding, *Rec. X*, 583.

its functions, *Rec. VII*, 891.

nutrition of man, list of publications, *Rec. X*, 281.

and water supply of—

French troops in Madagascar, *Rec. X*, 79.

native tribes of Australia, *Rec. VIII*, 330.

animal, behavior in human body, *Rec. XII*, 379.

as affected by formalin, *Rec. VII*, 235.

as related to—

bacteriology, *Rec. VII*, 279.

excretion of hydrocarbons in oxen, *Rec. V*, 1032.

assimilation, as affected by pancreas, *Rec. IX*, 1079.

chemistry and economy, *Rec. VII*, 148.

children's, *Rec. VIII*, 254.

coloring matters in, *Rec. XII*, 780.

colors, *Rec. VII*, 63; *VIII*, 720.

concentrated—

for cattle, grinding, *Rec. V*, 349.

pigs, preparation, *Rec. V*, 349.

constituents—

inorganic, assimilation by animals, *Rec. V*, 822.

of milk, *Rec. V*, 944, 966.

consumption in abnormal work, *Rec. XI*, 375.

copper in, *Rec. II*, 324; *VII*, 425.

economy, *Rec. III*, 213; *V*, 594; *VIII*, 329; *XI*, 777.

effect—

of consuming at intervals, *Rec. IX*, 165.

on animal heat, *Rec. XII*, 981.

bacterial content of cow dung, *Rec. VII*, 573, 942.

butter. (*See* BUTTER.)

character of tallow, *Rec. XII*, 583.

composition of pork, *Rec. XII*, 582.

flavor of eggs, *Rec. XII*, 898.

health and strength of man, *Rec. VII*, 708.

metabolism and power to perform work, *Rec. XII*, 171.

milk. (*See* MILK; MILK PRODUCTION.)

exhibit at the Geneva Exhibition, *Rec. VIII*, 924.

fats, *Rec. VII*, 17.

fishes of Pennsylvania, *Rec. IX*, 925.

flavor, *Rec. IX*, 174.

flowers for, *Rec. VII*, 506

Food—Continued.

- for armies of Europe, Rec. IX, 786.
- general article, Rec. XII, 780.
- habits of—
 - American Sesiidæ, Rec. IX, 1063.
 - Coccinella 7-punctata*, Rec. IX, 1071.
- how to buy, cook, and serve, Rec. VIII, 720.
- in health and disease, Rec. VIII, 1014.
- inspection, Rec. IX, 589; XII, 586.
- inspection in—
 - Berlin and Charlottenburg, Rec. IX, 1078.
 - Massachusetts, Rec. XII, 975.
 - Michigan, Rec. XII, 823.
- investigations, Rec. V, 1003; VI, 90; VIII, 427; IX, 777.
- investigations—
 - and publications, Rec. VII, 803.
 - in Pennsylvania, Rec. VII, 803.
 - practical application, Rec. X, 678.
- laboratories—
 - establishment, Rec. V, 416.
 - in connection with experiment stations, Rec. V, 1.
- law, Rec. XII, 279.
- laws of Pennsylvania, Rec. IX, 786.
- manurial value, Rec. VII, 756.
- materials—
 - aseptics in, Rec. IX, 873.
 - migration in leaves, Rec. XII, 309.
- metallic contamination, Rec. VIII, 521.
- mineral, of conifers, Rec. VIII, 891.
- mixtures containing molasses, Rec. VII, 155.
- nutrients—
 - function in animal nutrition, Rec. IV, 935.
 - heat equivalent, Rec. VI, 590; VIII, 520.
 - uses in the body, Rec. VIII, 329.
 - nuts for, Rec. VIII, 788, 986.
- of birds, Rec. VIII, 750, 751.
- common birds, Rec. IX, 727.
- common crow, Rec. VII, 840.
- of cows—
 - nitrogen in, Rec. V, 524.
 - phosphate of lime in, Rec. V, 540, 639.
- of crow blackbirds, Rec. VII, 469.
- man, present and future, Rec. X, 992.
- moles, Rec. VII, 842.
- native birds, Rec. IX, 729.
- oysters, Rec. IV, 72.
- plants, studies, Rec. X, 264.
- robins, Rec. IV, 418.
- the Japanese, Rec. VII, 803.
- woodpeckers, Rec. VII, 470.
- plant, new, Rec. V, 874.
- plants—
 - of Australia, Rec. XI, 1015.
 - bees, Rec. IX, 770; X, 222.
 - brown-tail moth, Rec. IX, 462.
 - injurious insects, Rec. IV, 667.
 - North American Indians, Rec. VII, 63.
 - North American Membracidæ, Rec. IV, 667.
 - North American species of *Bruchus*, Rec. IV, 688.
 - San José scale, Rec. IX, 255.
 - Scolytidæ, Rec. V, 901.
 - warm countries, Rec. XI, 444.
- popular articles on, Rec. XI, 183.

Food—Continued.

- preparations—
 - analyses, Rec. XI, 672.
 - color analysis, Rec. XI, 813
 - study, Rec. VII, 890.
 - preservatives, Rec. VII, 63; VIII, 421; IX, 981; X, 170, 1089; XI, 184; XII, 780.
 - preservatives—
 - analyses, Rec. XI, 812, 883; XII, 279, 281.
 - effect on digestive ferments, Rec. IX, 783.
 - notes, Rec. XII, 280.
 - preserved, adulteration, Rec. X, 80.
 - products—
 - consumption in United Kingdom, Rec. IX, 981.
 - importation into Great Britain, Rec. X, 599.
 - of the world, Rec. VIII, 155.
 - report, Rec. IX, 581.
 - pure, in Pennsylvania, Rec. IX, 785.
 - relation to excretion of hydrocarbons, Rec. VI, 72.
 - required by man, Rec. XII, 871.
 - requirements—
 - in temperate climates, Rec. XII, 877.
 - of persons on expeditions, Rec. XI, 575.
 - supply—
 - handbook, Rec. X, 1088.
 - of England in time of war, Rec. IX, 87.
 - Manchester, Rec. IX, 274.
 - Paris, sanitary condition, Rec. X, 80.
 - the United Kingdom, Belgium, France, and Germany, Rec. XII, 476.
 - standards, Rec. X, 510.
 - studies on, Rec. V, 1003.
 - treatise, Rec. XII, 676.
 - tuberculous infection from, Rec. VIII, 332.
 - value of—
 - fruits, Rec. IV, 842; VI, 331; VIII, 330; X, 481, 1089.
 - nuts, Rec. VIII, 788, 986.
 - potatoes, Rec. IX, 479.
 - seaweeds, Rec. IV, 715.
 - white and brown shelled eggs, Rec. X, 274.
- Foods—
- albuminoids and fats, Rec. VIII, 155.
 - American, chemical composition, Rec. VIII, 426; IX, 786; XI, 379.
 - analyses, Rec. II, 582, 589; III, 213; IV, 59; V, 194; VI, 444, 1023; VII, 336; VIII, 329, 378, 426, 508; IX, 779, 873; X, 281, 1077, 1088; XI, 314, 672, 812.
 - analysis, formaldehyde in, Rec. IX, 808.
 - analysis methods, Rec. II, 185, 589, 608; IV, 59, 63; V, 510; VI, 504; VIII, 196, 203, 330; X, 411; XI, 418, 482; XII, 214, 476.
 - analysis methods—
 - editorial notes, Rec. II, 185.
 - manual, Rec. XI, 618.
 - and commercial products, directions for sampling, Rec. X, 1089.
 - and feeding stuffs—
 - protein in, Rec. VIII, 269.
 - recommendation for study, Rec. II, 91.
 - artificial, preparation, Rec. IX, 480.
 - availability, Rec. XII, 1069, 1075, 1076.
 - bacteria in, Rec. XII, 118.

Foods—Continued.

- cattle, patent, Rec. V, 66.
- cellulose in, Rec. IX, 1021.
- chemical, Rec. XII, 676.
- chemistry of, Rec. IV, 389.
- commercial, Rec. VIII, 821.
- comparative value, Rec. III, 214.
- cooking—
 - and steaming, Rec. V, 540, 825; VI, 445.
 - suggestions regarding, Rec. VI, 331.
- detection of—
 - abrostol, Rec. VII, 16.
 - chaff, Rec. XI, 672.
 - coal-tar colors, Rec. XI, 1100.
 - formalin, Rec. IX, 918.
 - formic aldehyde, Rec. X, 607.
 - horseflesh in, Rec. IV, 694; V, 540; XI, 21.
 - saccharin, Rec. XI, 312.
 - salicylic and boric acids, Rec. VIII, 742.
 - yellow coloring matters, Rec. IV, 316.
- determination of—
 - boric acid in, Rec. VIII, 861.
 - carbohydrates, Rec. X, 311.
 - gelatin in, Rec. X, 821.
 - pentosans, Rec. XI, 213.
 - purity, Rec. XI, 213.
 - sugar in, Rec. II, 589.
 - zinc in, Rec. VIII, 537, 742.
- development of poisons in fermentation, Rec. X, 184.
- digestible nutrients, Rec. IX, 786.
- digestibility, Rec. III, 213; IV, 63; IX, 780, 872; XII, 1075.
- digestibility, as affected by—
 - combinations, Rec. VII, 884.
 - fat and starch, Rec. VII, 336; VIII, 321, 616.
 - various salts, Rec. IV, 597.
 - watering before or after eating, Rec. VI, 745.
- digestion—
 - as affected by amount, Rec. IV, 449, 597.
 - affected by bodily exertion, Rec. IV, 223.
 - experiments, Rec. IV, 449.
 - of albuminoids, Rec. V, 534.
 - starchy, Rec. VII, 523.
- effect of insufficient supply of protein in, Rec. IV, 784.
- fuel value, Rec. XII, 1069, 1075, 1076.
- heat equivalent of nutrients, Rec. VI, 590; VII, 425; VIII, 520.
- improperly cooked, parasites in, Rec. VI, 472.
- in storage and transportation, protection, Rec. VI, 573.
- investigations, Rec. IV, 76.
- made from meat, Rec. VIII, 521.
- microscopic examination, Rec. IX, 918; X, 716.
- microscopical examination, new slide for, Rec. XI, 313.
- nutritive value and cost, Rec. VI, 752.
- patent—
 - examination, Rec. VII, 884.
 - for increasing yield of milk, Rec. VI, 468.
- prepared, for invalids and infants, analyses, Rec. VIII, 330; XI, 672.
- preservation, Rec. VIII, 155, 720.

Foods—Continued.

- preservation—
 - by pressure, Rec. XII, 1098.
 - chemistry of, Rec. VII, 890.
- preserved manufacture, Rec. XI, 278.
- relative proportion of different groups in dietaries, Rec. XII, 1070.
- salicylic acid in, Rec. V, 454.
- study, recommendation for, Rec. II, 91.
- succulent, effect on quality of beef, Rec. V, 245.
- Swiss, official methods of examination, Rec. XI, 1075.
- typical, of Mexicans, Rec. IX, 980.
- value, erroneous ideas regarding, Rec. XII, 279.
- vegetable, in the Leeward Islands, Rec. XII, 476.
- yellow coloring matters in, detection, Rec. IV, 316.
- Foot-and-mouth disease, Rec. VII, 805, 987.
- Foot-and-mouth disease— (See also APHTHOUS FEVER.)
 - bacillus, Rec. IX, 893.
 - bacterium, Rec. IX, 995.
 - control, Rec. VIII, 525; X, 496; XII, 1093.
 - destruction of the contagion in manure, Rec. XI, 92.
 - disease, resembling, Rec. XI, 795.
 - duration of immunity, Rec. X, 193, 496.
 - immunization experiments, Rec. XI, 92; XII, 194, 394.
 - in Germany, Rec. V, 263.
 - goats, Rec. X, 694; XI, 695.
 - Great Britain, Rec. IX, 892.
 - man, Rec. XI, 695.
 - pigs, Rec. XI, 695.
 - sheep, Rec. X, 694; XI, 695.
 - Sweden, Rec. V, 823; XI, 495.
 - inoculation for, Rec. V, 349; XI, 695, 696.
 - investigation, Rec. X, 496.
 - notes, Rec. XI, 793, 796, 995; XII, 194, 790, 885.
 - propagation by locusts, Rec. VIII, 912.
 - regulations, Rec. XII, 598.
 - studies, Rec. IX, 894, 1089; XII, 189.
 - susceptibility of herbivora, Rec. X, 496.
 - transmission in milk, Rec. IV, 986; V, 973; VI, 81.
 - treatment, Rec. XI, 192, 495; XII, 293.
- Foot-ball team, dietary study, Rec. XII, 677.
- Foot disease—
 - malignant in sheep, Rec. X, 694.
 - notes, Rec. XII, 488.
- Foot evil in horses and mules, Rec. IV, 75.
- Foot louse of sheep, Rec. IX, 67.
- Foot rot—
 - in cattle, Rec. X, 896.
 - sheep, notes, Rec. II, 731; III, 152, 619; V, 245; IX, 994; XI, 1092; XII, 292, 792, 1093.
 - of citrus fruits, notes, Rec. XII, 463.
 - treatment, Rec. XI, 392.
- Foot scab, notes, Rec. II, 79.
- Foothills, Sierra—
 - clearing land in, Rec. V, 606.
 - hay growing, Rec. V, 578.
- Forage—
 - adapted to Arkansas, Rec. VII, 296.

Forage—Continued.

- analyses, Rec. VII, 954.
- crops— (*See also special kinds.*)
 - and grain, Rec. V, 678.
 - common, Rec. IX, 899.
 - cost of production, Rec. VII, 575; X, 946.
 - diversification, Rec. IV, 661.
 - insects affecting, Rec. X, 164.
 - in the Domain of Fraux, Rec. VIII, 885.
 - the South, Rec. XI, 397.
 - mixed, notes, Rec. XI, 833.
 - notes, Rec. XI, 1037; XII, 234, 419, 442, 698, 843.
 - press for green, Rec. IX, 1097.
 - supplementary, Rec. XII, 698.
 - treatise, Rec. XII, 45.
 - varieties, Rec. X, 846.
- plants— (*See also GRASSES.*)
 - adapted to Arkansas, Rec. VIII, 402.
 - alpine, Rec. VIII, 891.
 - analyses, Bul. 2, II, 45; Rec. II, 57, 601; III, 296; V, 64, 171; VI, 98; VII, 954; IX, 934.
 - and grasses, exotic v. native, Rec. VIII, 491.
 - and grass plats, notes, Rec. II, 594.
 - grasses. (*See GRASSES AND FORAGE PLANTS.*)
 - weeds in meadows, Rec. VI, 969.
 - at Minnesota Station, Rec. VI, 722.
 - Australian, Rec. VI, 45.
 - chemical studies, Rec. XII, 1031.
 - conditions favorable to growth, Rec. II, 601.
 - cooperative experiments, Rec. XI, 1032, 1033; XII, 332.
 - cooperative investigations, Rec. XII, 935.
 - crossing, Rec. X, 927.
 - cultivation, importance of, Rec. II, 600.
 - culture, Rec. VII, 954; VIII, 306; X, 433.
 - culture experiments, Bul. 2, I, 61, 64; Bul. 2, II, 23, 124; Rec. I, 72; III, 15, 16, 29, 51, 82, 284, 595, 696; IV, 38, 76, 140, 645, 825, 907; V, 171, 176, 436, 625, 1074; VI, 34, 294, 295, 531, 722; VII, 26, 295; VIII, 43, 214, 308, 393, 400, 401, 587, 687; IX, 40, 131, 241, 342, 439, 441, 1025; X, 244, 433, 736, 846, 945; XI, 339; XII, 229, 1036.
 - culture for seed, Rec. X, 348.
 - culture for soiling, Rec. IV, 29.
 - culture in Alaska, Rec. XII, 630.
 - culture in France, Rec. VIII, 975.
 - culture, principles, Rec. IX, 446.
 - digestion experiments, Bul. 2, II, 45.
 - effect of fertilizers on, Rec. II, 580.
 - fertilizer experiments, Bul. 2, I, 21, 23, 72; Rec. IX, 441.
 - field experiments, Rec. VIII, 891.
 - for alkali soils, Rec. XI, 423; XII, 138.
 - Arkansas, Rec. XII, 634.
 - California, Rec. III, 595; X, 223.
 - ranges, Rec. XII, 231.
 - Southern countries, notes, Rec. VI, 45.
 - sowing in September, Rec. V, 436.
 - summer pasture, Rec. XI, 279.
 - the South, Rec. VI, 91, 294; XI, 539.
 - use in spring, Rec. V, 436.
 - Victoria, Rec. XI, 214.
 - germination test, Rec. I, 295.

Forage—Continued.

- plants—continued.
 - growth without irrigation, Rec. XII, 85.
 - imported from Russia, Rec. XI, 319; XII, 45.
 - insects affecting, Rec. V, 515; VIII, 808; X, 164; XII, 862.
 - leguminous. (*See LEGUMINOUS PLANTS.*)
 - methods of analysis, Rec. IV, 768.
 - mixed, Rec. VII, 299.
 - native, Rec. XII, 827.
 - native and introduced, Rec. VIII, 306.
 - new, Rec. V, 925; VIII, 47, 306; IX, 241, 348.
 - new varieties, importance of introduction, Rec. II, 650.
 - Norwegian, analyses, Rec. IX, 268; X, 82.
 - notes, Rec. X, 546; XI, 28, 315; XII, 337, 615, 898, 945, 1037.
 - of Australia, Rec. X, 928.
 - Belgium, Rec. VI, 405.
 - central Texas, Rec. X, 342.
 - eastern Rocky Mountain region, Rec. X, 541.
 - foreign countries, Rec. VII, 209.
 - Gulf States, Rec. X, 718.
 - James River Valley, Rec. X, 629.
 - Modena, Rec. V, 925.
 - Red Desert of Wyoming, Rec. X, 718.
 - salt marshes, Rec. II, 486.
 - the Dakotas, Rec. VIII, 883.
 - the prairie regions, Rec. VIII, 780.
 - the Rocky Mountain regions, Rec. VIII, 781.
 - the southeastern States, Rec. VII, 575.
 - Washington, Rec. XII, 234.
 - Wurttemberg, Rec. XI, 43.
 - Wyoming, catalogue, Rec. V, 680.
 - pot experiments, Rec. XI, 32.
 - production, Rec. II, 56.
 - root development, Rec. X, 319.
 - seeds of North American, Rec. V, 667.
 - selection, Rec. II, 56; III, 148; V, 195.
 - studies, Rec. XII, 745.
 - Swedish, analyses, Rec. IV, 769, 971; VII, 497; X, 72.
 - syllabus of instruction, Rec. XI, 1099.
 - tests, scope and plan, Rec. IV, 399.
 - tropical, analyses, Rec. VIII, 306.
 - value, Rec. II, 101.
 - varieties, Rec. III, 625, 860; VII, 31; XII, 436, 629, 630.
 - yield, per acre, Rec. VI, 203.
- poisoning of horses, Rec. XII, 886.
- preservation of green, Rec. IX, 551, 1097; XII, 177.
- problems in the West, Rec. VII, 179.
- quantity and quality as affected by fertilizers, Rec. IX, 446.
- utilization of leaves, twigs, etc., Rec. VII, 36.
- value of weeds of Florida, Bul. 2, I, 64.
- Forceps for holding pigs during inoculation, Rec. XII, 894.
- Forcing—
 - and propagating houses, description, Rec. VI, 348.
 - asparagus, Rec. VII, 687, 770; VIII, 984; X, 354, 698; XI, 450; XII, 952.
 - azaleas, Rec. X, 152.

Forcing—Continued.

- beans, Rec. II, 507; VII, 504, 687; VIII, 606; XII, 952.
- book, Rec. VIII, 792.
- cabbage, Rec. X, 148.
- cauliflowers, Rec. VIII, 268, 492; IX, 46; X, 354; XII, 952.
- cherries, Rec. VI, 729; XII, 853.
- crops for greenhouses, Rec. IV, 414.
- cucumbers, Rec. III, 240; VI, 729; VII, 770; VIII, 700; XII, 952.
- cucumbers in deep and shallow benches, Rec. XI, 734.
- eggplants, Rec. VII, 401.
- figs, Rec. VI, 729; XII, 853.
- fruits, Rec. VI, 729; VII, 586; IX, 246; XI, 153; XII, 753.
- grapes, Rec. V, 873, 878; VII, 217, 505, 586, 772, 868, 960; VIII, 231, 601, 701, 792; XI, 745.
- house crops, fertilizing, Rec. VIII, 402.
- house—
 - description, Rec. IV, 554; IX, 560.
 - miscellanies, Rec. IX, 449.
- houses—
 - artificial soil in, Rec. VIII, 405.
 - for raisins, Rec. VI, 221.
 - heating, Rec. VIII, 597.
 - in dark climates, Rec. V, 663.
 - steam *v.* hot water for, Rec. VII, 400.
- hybrid perpetual roses, Rec. VII, 586.
- industry in France, Rec. XI, 153.
- legumes, Rec. VII, 687.
- lettuce, Rec. V, 129; VII, 35, 687; IX, 51, 327, 840, 899, 1048; X, 149, 264, 957; XI, 296, 1039.
- lilacs, Rec. IX, 141.
- lily of the valley, Rec. IX, 247.
- melons, Rec. VI, 729.
- nectarines, Rec. IX, 755.
- peaches, Rec. IX, 755.
- pineapples, Rec. VI, 729; VIII, 496; XI, 352.
- plants by ether, Rec. XII, 243.
- plums, Rec. XI, 352.
- pole beans, Rec. XI, 147, 599.
- potatoes, Rec. X, 149.
- rhubarb, Rec. VII, 771; VIII, 600; XI, 51, 645, 649, 999.
- roses, Rec. VII, 586; IX, 151, 247.
- strawberries, Rec. VI, 729; VII, 767; IX, 139, 246, 353.
- sweet corn, Rec. XI, 146.
- tomatoes, Rec. VIII, 496; IX, 244, 1051; X, 149; XI, 1039.
- vegetables, Rec. VI, 548; VII, 504; IX, 754, 950; X, 853.
- Forda rucca*, notes, Rec. XI, 765.
- Forecasting. (*See also* WEATHER FORECASTING.)
 - monsoon rains, Rec. VII, 474.
 - thunderstorms, Rec. V, 91.
- Forecasts—
 - seasonal—
 - in Colorado, Rec. XII, 521.
 - India and America, Rec. X, 326.
 - Oregon, Rec. VIII, 676.
 - value, Rec. VII, 474.
- Foreign—
 - agricultural notes, Rec. IV, 578; V, 221; VI, 486, 943; VII, 164, 259.
 - pollen, secondary effect, Rec. V, 659.

Foreign—Continued.

- trade, recent features, Rec. V, 798.
- trees—
 - for German forests, Rec. X, 1046.
 - the Southern States, Rec. VII, 774.
- Foremilk—
 - bacterial flora, Rec. VII, 174.
 - bacteriology as related to cheese inflation, Rec. VII, 528, 991.
- Forest—
 - air and soil, hygienic significance, Rec. IV, 876.
 - and rainfall, Rec. IX, 531, 817; X, 1020; XI, 718.
 - shade trees, insects injurious to, Rec. V, 654.
 - snowfall, Rec. XI, 221.
 - stump lands, care, Rec. X, 1045.
 - area, effect on humidity of air, Rec. IX, 248.
 - areas, denuded, restoration by pasturage, Rec. XI, 941.
 - belts, Rec. XII, 561.
 - birds as enemies of forest insects, Rec. VIII, 961.
 - clearing, effect on rainfall and temperature, Rec. XI, 127.
 - communal, history, Rec. X, 644.
 - conditions—
 - and management in Germany, Rec. XI, 1050.
 - of Australia, Rec. XII, 562.
 - Cuba, Rec. XII, 562.
 - New Jersey coastal plain, Rec. XII, 560.
 - Porto Rico, Rec. XI, 853.
 - the southern Sierras, Rec. VIII, 605.
 - cover, effect on growth of plants, Rec. VIII, 605.
 - crop, measurement, Rec. X, 966.
 - culture, Rec. X, 443.
 - culture—
 - advisability, Rec. XI, 458.
 - and timber trees, Rec. VI, 223.
 - experiments in Bavaria, Rec. X, 53.
 - in Algeria, Rec. VII, 962.
 - northern Scandinavia, Rec. VIII, 605.
 - destruction and water flow, Rec. IX, 843, 953.
 - domain of Belgium, Rec. XI, 747.
 - economy, principles of, Rec. XI, 1050.
 - extension, necessity, Rec. IX, 248.
 - fires, Rec. IX, 248; X, 397.
 - fires—
 - and floods in Pennsylvania, Rec. VI, 731.
 - fungus diseases, Rec. V, 540.
 - the drought of 1893, Rec. V, 731.
 - causes and prevention, Rec. VI, 253, 731, 821; VII, 135, 776.
 - control, Rec. XII, 455.
 - due to camp fires, Rec. XII, 563.
 - in Belgium, Rec. XII, 563.
 - France, Rec. XII, 455.
 - New Jersey, Rec. VII, 776.
 - North America, Rec. VI, 731.
 - Pennsylvania, Rec. IX, 843; XII, 651.
 - injurious effects, Rec. IX, 953.
 - insurance against, Rec. IX, 53.
 - legislation, Rec. V, 54; VIII, 136.
 - origin and loss from, Rec. V, 54; VI, 731.

Forest—Continued.

fires—continued.

prevention, Rec. VIII, 703.

protection against, Rec. IX, 452.

flies and ticks, Rec. IX, 253.

flora of the Mississippi River alluvial region,
Rec. VII, 508.

growing, Rec. X, 964.

growth as affected by sheep grazing, Rec. X, 52.

industry in Haute-Savoie, Rec. VII, 870.

influences, Rec. V, 94; XI, 1050.

lands—

in Massachusetts, Rec. VII, 776.

reservation in the United States, Rec. IV,
521.

leaves—

analysis of water extract, Rec. XI, 138.

and sawdust as feeding stuffs, Rec. V, 733,
822.

feeding value, Rec. V, 439.

nursery, Rec. XII, 956.

pea—

analyses, Rec. V, 171.

culture experiments, Rec. V, 171.

planting—

as affected by arbor day, Rec. IX, 953.

in Canada, Rec. XII, 561.

Norway, Rec. XII, 560.

Russia, Rec. IX, 563.

policy—

for the Western States, Rec. VII, 870.

of European nations, Rec. VII, 777.

preservation—

importance, Rec. VI, 730.

reasons for, Rec. XII, 697.

relation to the public welfare, Rec. XI,
458.

problems, Rec. XII, 757.

problems—

in Michigan, Rec. XII, 757.

Russia, Rec. XII, 652.

the United States, Rec. XI, 454, 941.

production, tables, Rec. VIII, 794.

protection, use of copper fungicides, Rec. X,
366.ranger system of the United States, Rec. XI,
854.

reservation and water supply, Rec. VII, 870.

reservations—

establishment, Rec. IX, 53.

in southern California, Rec. IX, 452.

legislation, Rec. IX, 652.

preservation, Rec. X, 1046.

San Gabriel, Rec. X, 856.

reserves—

for sheep grazing, Rec. IX, 844.

of the United States, Rec. IV, 521, IX,
843; XI, 195; XII, 452, 955.

resources of the United States, Rec. XI, 1050.

seed—

characteristics, Rec. V, 437.

investigations, Rec. VIII, 410.

soils, fixation of nitrogen in, Rec. IX, 1041.

stand, studies, Rec. X, 53.

studies in Minnesota, Rec. VIII, 315.

technology and uses of wood, Rec. X, 52.

Forest—Continued.

tent caterpillar—

destruction by birds, Rec. XII, 366.

effect on maple sugar, Rec. XII, 69, 166.

notes, Bul. 2, II, 58, 59, 92; Rec. I, 12; II,
115, 651, 654; III, 313, 399; VIII, 999; X,
459, 871, 1067; XI, 169, 269; XII, 68, 263,
269, 272, 367, 466.

predaceous enemies, Rec. XI, 866.

prevalence in Minnesota, Rec. IV, 204.

remedies, Rec. XI, 368, 866.

tree—

growing, Rec. XII, 559.

plantations, Rec. V, 303; VI, 426, 730; VII,
133, 507, 508; VIII, 315.

plantations in—

Canada, Rec. II, 6; VI, 426.

Kansas, Rec. VII, 508.

Ohio, Rec. VII, 508.

South Dakota, Rec. IV, 829; VII, 507.

Washington, Rec. VII, 133.

planter's manual, Rec. VI, 427; VII, 776.

seedlings, cooperative experiments, Rec.
XII, 651.

seeds, collection, Rec. IX, 844, 953.

seeds, germination, Bul. 2, I, 63.

seeds, germination tests, Rec. V, 61.

seeds, preservation, Rec. XII, 959.

seeds, scattering by mammals, Rec. XI,
712.

trees, Rec. V, 682.

trees—

and shrubs, Rec. II, 6, 741; VII, 776.

annual growth, Rec. X, 50.

as affected by climate, Rec. XI, 455.

at Illinois Station, Rec. V, 303.

Pennsylvania Station, Rec. VI, 730.

care, Rec. X, 965.

cooperative experiments, Rec. IX, 1025.

cost of planting and cultivating, Rec.
IX, 843.

decay, Rec. XI, 458, 1052.

defoliation, Rec. IX, 962.

depreciation in value, Rec. XII, 650.

diseases, Rec. VII, 224; IX, 568.

distribution, Rec. IX, 834.

dying, Rec. IX, 962.

fall v. spring transplanting, Rec. VI, 426.

for Iowa planting, Rec. III, 788.

prairie planting, Rec. III, 105.

fungus and insect enemies, Rec. VII, 695;
IX, 652, 760.

geographical distribution, Rec. VI, 223.

growth, Rec. VI, 488; IX, 757; X, 50, 53.

growth, methods of, Bul. 2, I, 66.

growth, rate, Rec. IV, 45, 829.

important, of the United States, Rec. XI,
1050.insects affecting, Rec. V, 348, 654, 686, 884;
VI, 730; VII, 180, 231, 316; IX, 850.

insect injuries, Rec. V, 654, 686; IX, 669.

life history, Rec. X, 443.

nitrogen requirement, Rec. X, 1046.

notes, Rec. II, 395, 662, 741; III, 246; V,
682, 870, 871; VIII, 891; XI, 1051.

of California, Rec. III, 597.

Cambre, parasites, Rec. XI, 950.

Forest—Continued.

trees—continued.

- of Europe, notes, *Rec. XI*, 942.
- India, fungi, *Rec. IX*, 361; *X*, 266; *XI*, 950.
- Iowa, *Rec. III*, 788.
- Nebraska, *Rec. III*, 521; *IX*, 843; *X*, 644, 964.
- Nebraska, nomenclature, *Rec. X*, 644.
- Ohio, *Rec. VII*, 508; *XII*, 248.
- Russia, parasitic fungi, *Rec. X*, 266, 365.
- United States, check list, *Rec. X*, 643.

ornamental, *Rec. VI*, 903.

parasitic fungi, *Rec. IX*, 361.

planting, *Rec. III*, 85, 105, 107.

plant lice on, *Rec. VII*, 231.

pruning, *Rec. VIII*, 604.

resinous, *Rec. X*, 52.

size in Nebraska, *Rec. X*, 964.

species, *Rec. III*, 45, 246, 360, 361; *IV*, 653, 654, 922.

stand as affected by light, *Rec. XI*, 458.

transplanting, *Rec. VI*, 296.

value as determined by timber tests, *Rec. IX*, 843.

varieties, *Bul. 2, I*, 109; *Rec. I*, 20, 320; *II*, 662.

varieties for Middle and New England States, *Rec. VIII*, 314.

varieties for South Dakota, *Rec. IX*, 248.

vegetation—

and nitrogen, *Rec. IX*, 227.

as affected by alkali, *Rec. XI*, 434.

affected by frost, *Rec. VII*, 870.

zoological guide, *Rec. X*, 52.

Forestral, meteorological studies, *Rec. X*, 26.

Forestation of mountains and mitigation of floods, *Rec. IV*, 693.

Foresters, German, convention, *Rec. IX*, 843; *X*, 856.

Forestry— (*See also* TIMBER and WOOD.)

American, treatise, *Rec. XII*, 455.

and agriculture in Russia, *Rec. V*, 543.

geology, relation, *Rec. X*, 1046.

horticulture in Europe, *Rec. X*, 757.

improvement of estates, *Rec. IX*, 757.

park management, *Rec. IX*, 953.

the abandoned farm, *Rec. VI*, 903.

wood pulp supplies, *Rec. X*, 52.

application to spruce lands, *Rec. X*, 52.

as affected by frosts, *Rec. X*, 53.

Association—

American, *Rec. III*, 434; *V*, 659; *VI*, 253, 731; *VII*, 508; *IX*, 600; *X*, 1100.

of Massachusetts, *Rec. XI*, 459, 942.

Minnesota, meeting, *Rec. VII*, 777.

at Michigan Agricultural College, *Rec. VI*, 903.

South Dakota Station, *Rec. I*, 20.

the Northwest Territory Experimental Farm, *Rec. VII*, 777.

the Paris Exposition, *Rec. XII*, 958.

bills introduced into Congress, *Rec. XI*, 1050.

commissioner of Pennsylvania, report, *Rec. X*, 443; *XI*, 941.

cooperative, *Rec. IX*, 53; *XI*, 745; *XII*, 452.

cooperative experiments, *Rec. XI*, 644.

Forestry—Continued.

Department of Russia, report, *Rec. XI*, 54.

development during the last twenty-five years, *Rec. XI*, 1099.

Division, work for the farmer, *Rec. XI*, 457.

domain of the Haut-Perche, *Rec. V*, 256.

drill culture in, *Rec. VII*, 870.

experimental, in Russia, *Rec. XI*, 747.

experiments, *Bul. 2, I*, 63; *Bul. 2, II*, 136; *Rec. I*, 315; *II*, 512, 662; *XII*, 248.

experiments at Mustiala Experiment Station, *Rec. X*, 442.

for farmers, *Rec. VII*, 508; *IX*, 844.

general principles, *Rec. III*, 104.

handbook, *Rec. VIII*, 794.

home nursery, *Rec. X*, 965.

in Bengal, *Rec. XI*, 457.

Bosnia and Herzegovina, *Rec. XI*, 747.

California, *Rec. VIII*, 703; *X*, 255.

Canada, *Rec. X*, 855; *XI*, 53, 845, 891; *XII*, 559.

England, *Rec. XII*, 248.

Europe, statistics, *Rec. III*, 105.

Japan, *Rec. XII*, 958.

Jutland, *Rec. VII*, 776.

Minnesota, *Rec. X*, 856.

Natal, *Rec. VI*, 731.

Nebraska, *Rec. IX*, 743.

New South Wales, *Rec. XI*, 457.

Ontario, *Rec. XII*, 248.

Pennsylvania, *Rec. VIII*, 605.

Porto Rico, *Rec. XII*, 795.

Roumania, *Rec. IX*, 843.

Russia, *Rec. X*, 258.

Russia, century summary, *Rec. XI*, 53.

South Dakota, *Rec. IX*, 247.

the Adirondacks, *Rec. XI*, 938; *XII*, 757, 958.

the United States, *Rec. V*, 820; *XI*, 1050.

in the United States—

progress, *Rec. XII*, 455.

résumé, *Rec. XI*, 457.

in Virginia, *Rec. IX*, 953.

Washington, *Rec. X*, 1046.

Wisconsin, *Rec. X*, 51; *XI*, 1050; *XII*, 757.

wooded and treeless regions, *Rec. III*, 104, 105; *XI*, 454.

Wyoming, *Rec. IV*, 956.

institute—

at St. Petersburg, memoirs, *Rec. X*, 725.

Vallombrosa, Italy, *Rec. IV*, 328.

investigations, review, *Rec. XI*, 1050.

legislation in—

Colorado, need of, *Rec. XI*, 458.

Michigan, *Rec. X*, 1046.

Minnesota, *Rec. XII*, 956.

Switzerland, *Rec. XI*, 459.

United States, *Rec. VII*, 870; *XII*, 248, 563.

management, *Rec. III*, 104.

meteorological studies, *Rec. V*, 94; *X*, 125.

notes, *Rec. XII*, 649, 733.

plantations—

height growth in, *Rec. XI*, 941.

Iowa, *Rec. X*, 257.

practical, *Rec. XI*, 941.

practical value to surface of the country, *Rec. VIII*, 315.

Forestry—Continued.

- practice by private owners, Rec. XII, 455.
- primer, Rec. XI, 855.
- private and State, Rec. IX, 452.
- profession, Rec. XI, 457.
- publications in library of U. S. Department of Agriculture, Rec. X, 643.
- railroad, Rec. XII, 248, 456.
- relation to meteorology, Rec. IX, 817; X, 1020.
- review of literature, Rec. XII, 653.
- sanitary significance, Rec. V, 95.
- school—
 - at Yale University, Rec. XI, 900.
 - national, of France, Rec. IV, 783.
- schools of Europe, Rec. XI, 1052.
- science, Rec. XI, 434.
- selection, Rec. X, 856.
- situation at Santa Monica, notes, Rec. XI, 941.
- State, Rec. XI, 1051.
- State, development in Saxony, Rec. X, 52.
- station at Chico, Rec. VI, 427.
- stations in California, Rec. V, 351; VI, 731, 821; XII, 954.
- studies, Rec. VI, 427; X, 443.
- treatise, Rec. XII, 756.
- usefulness of Braconidæ in, Rec. VIII, 808.
- working plans for different estates, Rec. XI, 941.

Forests—

- and reforestation in the Pyrenees, Rec. V, 820.
- subterranean waters in level regions, Rec. X, 130.
- as a means of protection against tidal waves or floods, Rec. X, 443.
- black-jack, of Oklahoma, reforestation, Rec. XII, 455.
- British, management, Rec. VIII, 605.
- charcoal, management, Rec. XI, 457.
- clearing away dead wood, Rec. VI, 144; IX, 53.
- climatic and economic influence, Rec. IV, 876; VI, 427.
- conservation, Rec. VII, 776; IX, 844; X, 53.
- density, Rec. XII, 247.
- destruction—
 - and restoration, Rec. VII, 870.
 - by beetles, Rec. VIII, 808; IX, 470.
 - Gryllus campestris* and *Tettix sublata*, Rec. VI, 731.
 - Scolytids, Rec. VIII, 415.
- distribution and classification, Rec. XI, 1050.
- effect—
 - of birds and insects, Rec. VIII, 891; IX, 142.
 - climate, Rec. VIII, 604; XI, 455.
 - exploitation, Rec. VIII, 794.
 - pasturing, Rec. X, 52; XI, 748; XII, 653.
 - on air temperature, Rec. XII, 653.
 - climate, Rec. IV, 876; V, 94; VI, 427; VIII, 604; XII, 522.
 - farms, Rec. VIII, 604, 794.
 - floods, Rec. X, 443; XI, 432.
 - hail in Russia, Rec. X, 327.
 - moisture content of air, Rec. VIII, 891.
 - preservation of snow, Rec. XII, 295.
 - rainfall, Rec. III, 926; V, 94; IX, 531, 817; X, 1020; XI, 127, 718, 1050.

Forests—Continued.

- effect—continued.
 - on snowfall, Rec. XI, 221.
 - soil moisture, Rec. XII, 527.
 - soil water, drainage, and flow of springs, Rec. XII, 426.
 - storage reservoirs, Rec. XI, 1052.
 - subterranean water, Rec. IX, 1041; X, 130.
 - temperature, Rec. V, 94; XI, 127, 1050; XII, 522, 653.
 - temperature of the soil, Rec. X, 442.
 - underground water, Rec. XI, 826.
 - water conservation, Rec. XI, 718.
 - water flow, Rec. IX, 843, 953; XII, 651.
 - water supply, Rec. V, 95; XI, 127, 718, 940, 1050.
- estimation of wood and timber, Rec. XII, 456.
- fertilization, Rec. X, 53.
- growth of reserve trees after lumbering, Rec. XI, 941.
- handling, Rec. X, 443.
- in the vicinity of Crater Lake, Oregon, Rec. VIII, 315.
- injuries by sheep, extent of, Rec. X, 52; XI, 748.
- injury by destructive pine-bark beetle, Rec. IV, 699.
- insects—
 - affecting, Rec. V, 348, 686; VI, 730; VII, 180, 231, 316; VIII, 807, 911; IX, 669, 760, 850; XI, 366, 1063; XII, 64, 272, 469, 975.
 - affecting, in the Baltic provinces, Rec. XII, 469.
 - destruction by flooding, Rec. VIII, 712.
 - management, Rec. VI, 56.
- management—
 - and improvement, Rec. XII, 649.
 - protection, Rec. VII, 508, 776, 870.
 - for charcoal production, Rec. XI, 457.
 - in British India, Rec. XI, 1050.
 - Germany, Rec. XII, 652.
 - Greece, Rec. VIII, 605.
 - India, Rec. VII, 962.
 - Maine, Rec. IX, 53.
- model for Scotland, Rec. XI, 457.
- mountain, restoration, Rec. XI, 455.
- natural—
 - reproduction in old fields, Rec. XI, 938.
 - spreading, Rec. XII, 757.
- necessity of preservation, Rec. XI, 940.
- occurrence of *Agaricus melleus* in, Rec. VII, 776.
- of Alaska, Rec. XII, 652.
- Bavaria, statistics, Rec. X, 357.
- Biltmore and Pisgah, N. C., Rec. IX, 843.
- Bohemia, effect of floods, Rec. VI, 144.
- Canada, Rec. XII, 756.
- Cape of Good Hope, Rec. XI, 1051.
- Dean, Rec. XI, 457.
- Germany, Rec. IX, 248.
- Indiana, Rec. XII, 652.
- Java, Rec. XII, 652.
- Maryland, Rec. XII, 1098.
- New Jersey, Rec. VI, 253.
- North Carolina, Rec. VII, 776.
- Ohio, Rec. XII, 561.
- Pennsylvania, Rec. VIII, 703.

Forests—Continued.

- of Prussia, Rec. XII, 757.
 - Russia, insect enemies, Rec. X, 373.
 - Saxony, Rec. XII, 956.
 - the Grand Duchy of Baden, Rec. XII, 957.
 - Transcaspien region, Rec. IX, 142.
 - petrified, of Arizona, Rec. VI, 253.
 - pine—
 - of Arizona, Rec. IX, 52.
 - Germany, Rec. XII, 652.
 - renovation, Rec. VIII, 605.
 - v. mixed, Rec. XI, 941; XII, 453.
 - protection and restoration, Rec. XII, 651.
 - relation to—
 - farmer, Rec. IX, 843.
 - farms, Rec. VIII, 794.
 - irrigation, Rec. X, 856.
 - surface of the country, Rec. VII, 135, 776.
 - removal of—
 - dead leaves, Rec. VIII, 314.
 - dead wood, Rec. IX, 53.
 - reproductive powers, Rec. VII, 962.
 - resinous, in France, treatment, Rec. XI, 1052.
 - Rhine, management, Rec. VIII, 605.
 - royal, of Prussia, Rec. VIII, 605.
 - rôle, Rec. IX, 248.
 - spruce and wood-pulp supply, Rec. VIII, 136.
 - thinning, Rec. VI, 300, 301; IX, 953; X, 856; XI, 941.
 - teak, of Burmah, Rec. VIII, 136.
 - uniformity of systems in, Rec. XI, 940.
 - value of, Rec. VII, 508, 777.
- Forficula auricularia.* (See EARWIG.)
- Forficularia*, n. sp., Rec. IX, 1070.
- Forli, Italy, experiment station at, Rec. IV, 236.
- Formaldehyde— (See also FORMALDEHYDE, FORMALIN, and FORMOL.)
- as a disinfectant, Rec. XI, 767, 893; XII, 1094.
 - as a preservative of—
 - food, Rec. XII, 976.
 - milk, Rec. XI, 582, 587.
 - detection, Rec. XII, 21.
 - detection in milk, Rec. VIII, 378, 381, 213, 418; XII, 680, 1005.
 - determination, Rec. XI, 419; XII, 21.
 - determination in free and combined state, Rec. XI, 705.
 - effect on—
 - digestion, Rec. XI, 575.
 - enzymes and proteids, Rec. XI, 125, 511, 715; XII, 118.
 - germination of cereals and smut spores, Rec. XII, 457.
 - proteids, Rec. XII, 108.
 - formation in plants, Rec. XI, 1015.
 - presence in plants, Rec. XII, 313.
 - use in analysis of gelatin, Rec. X, 716.
- Formaldoxin, as a reagent for copper, Rec. X, 821.
- Formalin—
- analyses, Rec. XII, 214.
 - as a disinfectant, Rec. VII, 928.
 - preservative, Rec. VI, 487; VII, 460, 528, 660, 700.
 - detection in—
 - foods, Rec. IX, 918.
 - milk, Rec. VII, 461; VIII, 200; IX, 419, 521; XI, 213, 418, 904.
 - determination in milk, Rec. XI, 904.

Formalin—Continued.

- effect on—
 - food, Rec. VII, 235.
 - germination of fungi and growth of bacteria, Rec. XI, 469.
 - for bean anthracnose, Rec. XII, 574.
 - corn smut, Rec. XII, 859.
 - grain smuts, Rec. IX, 569; XI, 162.
 - oak smut, Rec. IX, 1060; XII, 855, 859.
 - potato scab, Rec. VIII, 800; IX, 327, 456, 936; X, 264; XI, 260, 356; XII, 859.
 - preserving milk, Rec. VII, 460, 528; XI, 386.
 - wheat and oat smut, Rec. XI, 356.
 - gelatin for determination of tanning materials, Rec. IX, 521.
 - preparation and use, Rec. X, 60.
 - uses, Rec. VIII, 868.
- Formic acid—
- determination—
 - Haberland's method, Rec. XII, 214.
 - in presence of acetic acid, Rec. XII, 516.
 - effect on germination and growth of peas Rec. XII, 1009.
 - formation, Rec. III, 924.
- Formic aldehyde— (See also FORMALDEHYDE.)
- and its influence on bacteria, Rec. V, 924.
 - antiseptic power, Rec. VI, 507.
 - as a hardening solution, Rec. V, 1028.
 - a preservative, Rec. VII, 339; VIII, 205.
 - detection in—
 - feed stuffs, Rec. X, 20.
 - foods, Rec. X, 607.
 - determination, Rec. VIII, 201; IX, 420.
 - determination in milk, Rec. VIII, 378, 562, 667.
 - effect on germination, Rec. VII, 37; IX, 955; X, 320.
 - for analysis of foods and condiments, Rec. IX, 808.
 - condensing of tannins, Rec. VII, 921.
 - determination of nitric acid, Rec. IX, 522.
 - disinfection, Rec. VI, 389.
 - hardening animal tissues, Rec. VI, 473.
 - nutrition of green parts of plants, Rec. III, 925; IV, 290.
 - in animal diseases, Rec. IX, 390.
 - germination of seeds, Rec. VII, 37.
 - method for potash, Rec. IV, 85.
 - preparation and use, Rec. IX, 1062.
 - solutions, vaporization, Rec. VII, 928.
 - vapors for disinfection, Rec. VIII, 473.
- Formica rufa*, notes, Rec. XII, 469, 865.
- Formicidæ— (See also ANTS.)
- analytical key, Rec. VIII, 69.
 - Mexican, Rec. VII, 595.
 - of French Congo, list, Rec. VII, 44.
- Formol—
- antiseptic properties, Rec. VI, 389.
 - detection in milk, Rec. VIII, 459.
 - for destruction of micro-organisms, Rec. VII, 225, 312.
- Formose—
- effect on glycogen formation, Rec. XII, 981.
 - structure, Rec. IX, 225.
- Forsythia fortunei*, notes, Rec. IV, 655.
- Fossil—
- botany, treatise, Rec. III, 810.
 - faunas in Iowa, Rec. XII, 732.
 - fungi, notes, Rec. IV, 955.

Fostite—

- analyses, Rec. VI, 110.
- effect on peach foliage, Rec. V, 684.
- for apple scab, Rec. V, 683.
- fungus diseases, Rec. VI, 738.
- potato scab, Rec. V, 789.
- preparation and use, Rec. V, 684.

Foul brood—

- legislation, Rec. X, 375; XI, 870.
- (See also BEES.)

treatment, Rec. XII, 973.

Founder in horses, Rec. VIII, 625.

Fountain willow, notes, Rec. IV, 655.

Four-lined leaf bug, Rec. IX, 138.

Four o'clock—

- seed, analyses, Rec. XI, 883.
- wild, Rec. XI, 315.

Fowl cholera—

- nature and treatment, Rec. XI, 697; XII, 395.
- notes, Rec. VII, 525; XII, 894.

Fowl fever, Rec. XI, 291.

Fowl-infesting tick, Rec. VIII, 320.

Fowl meadow grass—

- as a forage plant, Rec. III, 29.
- for permanent meadows, Rec. III, 398.

Fowl tick, Rec. IX, 159.

Fowler's solution—

- for carnation rust, Rec. VII, 695, 788, 789.
- columbine borer, Rec. IX, 260.

Fowls— (See also CHICKENS, HENS, and POU-TRY.)

- as enemies of the locust, Bul. 2, II, 93.
- barnyard, Rec. VI, 931.
- care and feeding, Rec. VIII, 428.
- corn meal v. wheat bran for, Rec. IV, 940.
- epizootic parasitic gastritis, Rec. XII, 294.
- for profit, Rec. IX, 983.
- gapes in, Rec. V, 1085; VII, 426; IX, 96, X, 393, 698; XII, 894.
- intestinal helminthiasis, Rec. XII, 894.
- leukæmia in, Rec. IX, 890.
- nematode worm disease, Rec. XI, 594.
- nitrogenous v. carbonaceous diet, Rec. II, 506.
- roup—
 - differential diagnosis, Rec. XI, 985.
 - treatment, Rec. XI, 697, 994.
- temperature, Rec. XII, 294.
- tick, Rec. XI, 291.
- tuberculosis in, Rec. V, 254; XI, 593, 594, 985.
- wormy, Rec. VIII, 929, 1016.

Fox—

- flesh, heat of combustion, Rec. XII, 178.
- flying, notes, Rec. XI, 426.
- pine sawfly, notes, Rec. XI, 272.
- red, Rec. IX, 1030.

sedge—

- analyses, Rec. VI, 404.
- notes, Rec. X, 343.

squirrel louse, Rec. II, 609.

Foxes, damage to sheep industry, Rec. XII, 830.

Foxglove as a border plant, Rec. VIII, 986.

Foxtail—

- analyses, Rec. III, 629.
- bristly, analyses, Rec. VI, 403.
- eradication, Rec. VIII, 234.
- green, analyses, Rec. VI, 403.
- hay, analyses, Rec. XII, 981.
- meadow. (See MEADOW FOXTAIL.)

Foxtail—Continued.

- notes, Rec. V, 306, 529; X, 1048.
- root system, Rec. IV, 46.
- Sclerospora graminicola* affecting, Rec. XI, 58.
- wild water, analyses, Rec. VI, 403.
- yellow—

analyses, Rec. VI, 403.

notes, Rec. VII, 384.

Fragaria helleri, notes, Rec. VII, 564.

Frame—

- care in winter, Rec. VIII, 496.
- in plant culture, Rec. VII, 771.

France—

- agricultural institutions, Rec. III, 440.
- National Agricultural Institute Seed Control Station, Rec. V, 129, 627.
- National Agricultural Society, Rec. V, 265.
- National School of Forestry, Rec. IV, 783.

Frankfurter sausage, analyses, Rec. IX, 872.

Franklin kite club, Rec. VIII, 676.

Franseria—

- discolor*, notes, Rec. V, 306; VIII, 794.
- hookeriana*, notes, Rec. VI, 57, 732.

Frasera tubulosa, notes, Rec. VI, 114.

Fraxinus— (See also ASH.)

americana—

- ash analyses, Rec. I, 26.
- germination tests, Rec. V, 61.
- notes, Rec. II, 663; III, 522; IV, 654; VIII, 604.

anomala, notes, Rec. VI, 821.

cedenii, notes, Rec. IX, 248.

excelsior—

- cultivation, Rec. XI, 942.
- notes, Rec. VIII, 380.
- witches' broom, Rec. XII, 658.

pubescens, notes, Rec. III, 522.

spp., notes, Rec. VII, 134.

viridis—

- germination tests, Rec. V, 61.
- notes, Rec. II, 512, 663, 741; III, 522; IV, 654; VIII, 604.

Fraxinus, germination, Rec. IX, 653.

Free Union of Bavarian Representatives of Applied Chemistry, convention, Rec. VII, 271.

Freesias, improvement, Rec. X, 1045.

Freeze—

- of February, 1899, effect on fruits, Rec. XII, 50, 147.

1898-99, effect on orchards, Rec. XII, 244.

of 1899—

- effect on nurseries and orchards in the Northwest, Rec. XI, 930.
- in Iowa, Rec. XI, 549.
- the South, Rec. XI, 153.

Freezene as a milk preservative, Rec. X, 1096.

Freezes—

- light, effect on grapes, Rec. XI, 31.
- of 1894 and 1895, in Florida, Rec. VIII, 789.

Freezing—

- device, Rec. VII, 840.
- effect on—

embryo of hen's eggs, Rec. XI, 577.

feeding stuffs, Rec. XI, 576.

milk, Rec. II, 762; XI, 886.

excessive, effect on orchard fruits, Rec. XI, 1041.

point of dilute aqueous solutions, Rec. III, 654.

- Freiburg, Germany, sewage farms of, *Rec. X*, 98.
 Freight rates of transportation companies, *Rec. II*, 314, 609, 628, 673, 749; *III*, 53, 101, 183, 253, 326, 414, 543, 632, 728, 813, 903; *IV*, 282, 429, 578, 675, 762, 850, 957; *V*, 221, 328, 799, 1005; *VI*, 87, 172.
Fremontia californica, notes, *Rec. V*, 589.
 French weed, notes, *Rec. IV*, 669.
 Freshets in James River, Virginia, *Rec. XII*, 520.
 Fresh-water lakes, increase and decrease, *Rec. X*, 419.
 Fribourg breed of cattle, *Rec. VII*, 155.
 Fribourg, Switzerland—
 Dairy Experiment Station at, report, *Rec. V*, 1102.
 Dairy Station at, bacteriological investigations, *Rec. VII*, 338.
Fridericia agricola attacking grasses, *Rec. XI*, 564.
 Fringe slug, white, notes, *Rec. II*, 81.
 Fringe tree, American, notes, *Rec. VI*, 822.
 Fringed tapeworm, notes, *Rec. II*, 79.
 Fritflies, notes, *Rec. IV*, 694, 873; *V*, 438; *VI*, 65; *VII*, 882; *VIII*, 612; *IX*, 150; *XI*, 66, 264.
 (*See also* OSCINIS.)
 Fritfly—
 American—
 description and treatment, *Rec. III*, 889.
 notes, *Rec. III*, 197, 359, 889; *X*, 164; *XI*, 862; *XII*, 368.
 remedies, *Rec. IX*, 74; *XI*, 175.
 Fritillarias, culture, *Rec. IX*, 451.
Fratichia floridana, notes, *Rec. II*, 491.
 Frogs—
 susceptibility to hemorrhagic septicemia of poultry, *Rec. XII*, 991.
 tubercle bacilli—
 as affected by growth in, *Rec. XII*, 489.
 behavior in, *Rec. XII*, 892.
Frontina—
 armigera, notes, *Rec. XI*, 63.
 frenchii, notes, *Rec. XI*, 63.
 Frost—
 alarm, electric, *Rec. XII*, 619.
 and moonshine, *Rec. X*, 124.
 and the strawberry crop, *Rec. XI*, 819.
 butterfly, notes, *Rec. XI*, 66.
 cracks, effect on the oak, *Rec. VI*, 144.
 effect of untimely, *Rec. V*, 1037.
 effect on—
 cultivated soils, *Rec. X*, 832.
 different species of plants, *Rec. IV*, 400.
 different varieties of peaches, *Rec. XI*, 252.
 different varieties of strawberries, *Rec. XII*, 854.
 fall-plowed land, *Rec. XI*, 44.
 forest vegetation, *Rec. VII*, 870; *X*, 53.
 germination of wheat, *Rec. I*, 95, 99.
 growth of oaks and beeches, *Rec. IX*, 756.
 plants, *Rec. VII*, 189, 749; *VIII*, 792; *IX*, 31.
 fighting, *Rec. XI*, 127; *XII*, 314.
 formations, *Rec. IX*, 424, 531; *X*, 325.
 freaks of herbaceous plants, *Rec. V*, 741.
 grape, notes, *Rec. III*, 521.
 hoar, nitrogen in, *Rec. VIII*, 675, 676.
 injuries—
 internal, *Rec. VIII*, 471.
 prevention by whitening, *Rec. XII*, 643.
 Frost—Continued.
 injuries—continued.
 to apples and pears, *Rec. VIII*, 139.
 trees, *Rec. XI*, 515.
 injury and methods of protection, *Rec. VIII*, 109.
 nature, *Rec. V*, 660.
 of June 30, 1899, in Ohio, *Rec. XI*, 620.
 penetration in differently treated soils, *Rec. IV*, 448.
 prediction—
 and protection, *Rec. VI*, 788; *VII*, 475; *X*, 125; *XI*, 129; *XII*, 314.
 barometer for, *Rec. VII*, 475.
 prevention, *Rec. V*, 660.
 protection, *Rec. II*, 239; *VI*, 389, 621, 787, 789; *VII*, 18, 445, 660, 749, 845; *VIII*, 671, 890; *IX*, 532; *XI*, 153, 222, 429, 517, 819, 821; *XII*, 317, 941.
 protection—
 by artificial clouds, *Rec. XII*, 122.
 hot water, *Rec. XII*, 119, 122.
 smudging, *Rec. X*, 254.
 of small fruits, *Rec. XII*, 346.
 vineyards, *Rec. V*, 1030.
 resistance of beans, *Rec. XII*, 944.
 work in South Africa, *Rec. XII*, 118.
 Frosts—
 in California, *Rec. VIII*, 111, 475.
 May at Mardela Springs, Md., *Rec. VII*, 474.
 May, notes, *Rec. II*, 749.
 southern California, prediction and prevention, *Rec. VII*, 845.
 Fruit—
 and flowers, artificial coloration, *Rec. V*, 648.
 garden crops, manuring, *Rec. VI*, 727.
 vegetable garden for farmers, *Rec. VI*, 993.
 vegetables, value in diet, *Rec. IX*, 175.
 apparatus for watering and spraying, *Rec. VI*, 443.
 as a feeding stuff, *Rec. VII*, 708; *VIII*, 714.
 bark beetle—
 European, notes, *Rec. V*, 311.
 notes, *Rec. II*, 632; *III*, 657; *V*, 511; *VI*, 313, 546, 1003; *VIII*, 321, 418, 505, 507; *IX*, 463, 662, 962, 964; *XII*, 664.
 remedies, *Rec. VII*, 697; *IX*, 371, 574.
 bark borer, notes, *Rec. XI*, 173.
 bearing, effect on development of mechanical tissue, *Rec. VIII*, 745.
 blossoms—
 as affected by cold rains, *Rec. X*, 58.
 nonfertility, *Rec. VI*, 992.
 buds—
 development as affected by root pruning, *Rec. X*, 46.
 formation, *Rec. XII*, 753.
 of tomato, dropping, *Rec. X*, 1054.
 bug, harlequin, *Rec. VIII*, 69.
 butter, analyses, *Rec. XII*, 79.
 canker, notes, *Rec. XII*, 463.
 carbonic-acid process for shipment, *Rec. VIII*, 408.
 chafer, brown, *Rec. XI*, 365.
 crop prospects, May, 1894, *Rec. VI*, 87.

Fruit—Continued.

- crystallized and glacéd, *Rec. XI*, 549.
 culture, *Bul. 2*, 1, 31; *Rec. III*, 876; *V*, 496;
IX, 755; *XII*, 55, 698.
 culture— (*See also* FRUIT GROWING.)
 and geology, *Rec. XI*, 744.
 marketing, *Rec. X*, 152.
 experiments, *Bul. 2*, 1, 64; *Rec. III*, 886;
XII, 229.
 European, injuries of American scale in-
 sects, *Rec. X*, 569.
 in Arkansas Valley, *Rec. IV*, 653.
 Australia, *Rec. VI*, 729; *IX*, 51.
 Bohemia, *Rec. VI*, 820.
 California, *Rec. VI*, 729.
 Canada, *Rec. IX*, 357.
 Colorado, *Rec. III*, 686.
 Delaware, *Rec. III*, 689.
 Denmark and Sweden, *Rec. IX*, 1053.
 England, *Rec. VII*, 587.
 foreign countries, *Rec. III*, 810.
 Germany, *Rec. IV*, 223.
 Gironde, *Rec. VI*, 820.
 Iowa, *Rec. VI*, 229.
 Kentucky, *Rec. VI*, 51.
 Malaga, *Rec. VII*, 583.
 Michigan, *Rec. III*, 700.
 Nebraska, *Rec. VI*, 990.
 New England, *Rec. VI*, 299.
 New Mexico, *Rec. III*, 886.
 North America, *Rec. XI*, 152.
 North Georgia, *Rec. VI*, 820.
 northern latitudes, *Rec. XII*, 1044.
 Ontario, *Rec. VI*, 419.
 South Dakota, *Rec. IX*, 48.
 the Himalayas, *Rec. VII*, 868.
 manual, *Rec. VII*, 771; *VIII*, 890; *X*, 48,
 152; *XI*, 251.
 notes, *Rec. VII*, 131; *XII*, 151.
 principles, *Rec. X*, 757.
 studies, *Rec. XI*, 451.
 decays, study, *Rec. V*, 401; *VI*, 825.
 development as affected by Bordeaux mix-
 ture, *Rec. XI*, 262.
 directions for harvesting, packing, and mar-
 keting, *Rec. II*, 426.
 diseases, notes, *Rec. XII*, 573.
 drier, new, *Rec. VII*, 505.
 drying—
 in California, *Rec. IX*, 51.
 New South Wales, *Rec. VIII*, 985.
 notes, *Rec. VI*, 821; *VII*, 868.
 sulphuring in, *Rec. V*, 589.
 English *v.* American, *Rec. VIII*, 408.
 essences, analyses, *Rec. XII*, 908.
 exhibit—
 at Paris, *Rec. XII*, 1045.
 international, *Rec. IV*, 992.
 farming in Luxemburg, *Rec. VI*, 993.
 flavor, *Rec. XI*, 250.
 flavor as affected by graft, *Rec. X*, 552.
 flies, notes, *Rec. IX*, 65.
 fly—
 host plants, *Rec. X*, 469.
 Mediterranean, *Rec. XI*, 563.
 Mexican, notes, *Rec. V*, 409.
 notes, *Rec. X*, 470, 769; *XI*, 760, 870, 958;
XII, 69.

Fruit—Continued.

- fly—continued.
 Queensland, *Rec. XI*, 563.
 remedies, *Rec. XII*, 1068.
 form, as affected by pollen, *Rec. VIII*, 205.
 frozen, thawing, *Rec. VIII*, 408.
 fumigation with hydrocyanic acid, *Rec. X*,
 771.
 gardening, *Rec. VIII*, 604.
 gathering and packing, *Rec. VII*, 308.
 grower and ants, *Rec. V*, 901.
 Growers' Association of Ontario, report, *Rec.*
VI, 56.
 growers, books for, *Rec. XI*, 999.
 growing— (*See also* FRUIT CULTURE.)
 in Australasia, *Rec. XI*, 547.
 Canadian Northwest, *Rec. VIII*, 985.
 Chile, *Rec. XI*, 538.
 eastern Texas, *Rec. V*, 352.
 Kentucky, *Rec. VII*, 868.
 New Jersey, statistics, *Rec. VIII*, 886.
 New York, *Rec. II*, 246; *X*, 959.
 Nova Scotia, *Rec. XI*, 451.
 Oklahoma, *Rec. VIII*, 601.
 Pennsylvania, *Rec. XII*, 698.
 Queensland, *Rec. VII*, 308.
 the United States, *Rec. X*, 549, 552; *XI*,
 50.
 principles, *Rec. IX*, 246.
 under glass in England, *Rec. XI*, 650.
 under irrigation, *Rec. V*, 985; *VI*, 729; *XI*,
 1048.
 harvesting, *Rec. II*, 426; *VII*, 308; *X*, 353.
 in diet, value of, *Rec. IX*, 175.
 inspection, *Rec. XI*, 66.
 juice, analyses, *Rec. XII*, 279.
 juices—
 detection of salicylic acid, *Rec. IX*, 419.
 determination of sugar in, *Rec. VII*, 556.
 investigations, *Rec. VII*, 867.
 sirups and confections, analysis, *Rec. VII*,
 463.
 maggot fly, remedies, *Rec. IX*, 462, 463; *XI*,
 273.
 marketing, *Rec. II*, 426; *IX*, 949; *X*, 353.
 Monilia, notes, *Rec. II*, 482.
 moth, notes, *Rec. XII*, 468.
 moths attacking, *Rec. XI*, 170.
 musts, sterilization, *Rec. IX*, 25.
 New England, *Rec. VII*, 772.
 of conifers, comparative anatomy, *Rec. VI*,
 968.
 sequoia, *Rec. IX*, 651.
 the grasses, structure and life of, *Rec. V*,
 818.
 orchard at the Polytechnic School at Zürich,
Rec. V, 256.
 packing and shipping, *Rec. VI*, 821; *VII*, 308;
X, 353, 758; *XII*, 345.
 packing house, plan, *Rec. VI*, 252.
 packing houses, *Rec. VIII*, 311.
 persistence of types under cultivation, *Rec.*
XI, 152.
 picking, *Rec. II*, 426; *X*, 353.
 preserving, *Rec. VI*, 821.
 preserving—
 powder, analyses, *Rec. II*, 666.
 with peat, *Rec. XI*, 250.

Fruit—Continued.

- production—
 - as affected by windbreaks, **Rec. IX**, 354.
 - by States, **Rec. VI**, 347.
- protection against parasitic fungi, **Rec. X**, 562.
- pulp, exports from Canada, **Rec. XI**, 547.
- pulping, **Rec. X**, 758.
- relation to blossoms, **Rec. VI**, 991.
- rots, study of, **Rec. IV**, 399; **XI**, 164.
- scab, treatment, **Rec. VIII**, 966; **XII**, 463.
- scoring, **Rec. X**, 355.
- setting, conditions affecting, **Rec. X**, 757.
- shipment, carbonic acid process, **Rec. VIII**, 408.
- shipment to England, **Rec. VI**, 549; **VII**, 308; **VIII**, 887.
- sirups and confections, analysis, **Rec. VII**, 463.
- sirups, methods of analysis, **Rec. V**, 127.
- soils—
 - of Oregon, **Rec. IX**, 737.
 - Virginia, **Rec. XII**, 122.
- specimens, preparation for exhibition, **Rec. VIII**, 701.
- spots caused by scale lice, **Rec. XII**, 865.
- sprayed, healthfulness, **Rec. IV**, 173, 437; **VII**, 969. (*See also footnote, p. 66.*)
- stations at South Haven and Grayling, Mich., discontinuation, **Rec. V**, 1034.
- stations for instruction, **Rec. XI**, 744.
- statistics for Ontario, **Rec. VI**, 55.
- tender, export, **Rec. X**, 353.
- tests, value, **Rec. VII**, 179.
- thinning, **Rec. VI**, 299, 729; **IX**, 48; **X**, 46, 152, 197, 254, 354, 848.
- trade in Cape Colony, **Rec. V**, 354.

Fruit tree— (*See also* FRUITS.)

- bark beetle—
 - notes, **Rec. X**, 165.
 - remedies, **Rec. X**, 469.
 - (*See also* SCOLYTUS RUGULOSUS.)
 - blight, due to bacteria, **Rec. V**, 592.
 - canker, notes, **Rec. XII**, 61.
 - diseases, treatment, **Rec. V**, 497.
 - fungus parasites, **Rec. XII**, 657.
 - gummosis, notes, **Rec. XII**, 61.
 - leaf roller, notes, **Rec. IV**, 58.
 - mildew, notes, **Rec. XI**, 949; **XII**, 61.
 - parasite, notes, **Rec. XII**, 359.
 - root disease, **Rec. XII**, 257.
- Fruit trees— (*See also* ORCHARDS.)
- along highways, **Rec. XI**, 851.
 - analyses, **Rec. IV**, 252; **VI**, 50.
 - arsenical spraying while in blossom, **Rec. V**, 517; **VI**, 654.
 - chlorosis, **Rec. XI**, 946; **XII**, 61.
 - comparison of growth, **Rec. X**, 44.
 - crown gall, **Rec. VI**, 431.
 - deciduous, crown gall, **Rec. XI**, 858.
 - defoliation, **Rec. IX**, 962.
 - diseases, **Rec. IX**, 362, 568, 659.
 - diseases as affected by weather, **Rec. X**, 365.
 - dwarf, advantages, **Rec. XI**, 251.
 - effect of—
 - arsenical spraying while in bloom, **Rec. V**, 517; **VI**, 654.
 - crude petroleum, **Rec. XI**, 868.
 - fungicides and insecticides, **Rec. XI**, 862; **XII**, 860.

Fruit trees—Continued.

- effect of—continued.
 - kerosene, **Rec. XII**, 165.
 - washes, **Rec. VII**, 962.
- evaporation of water from twigs, **Rec. X**, 152.
- failure to set fruit, **Rec. XI**, 154, 498.
- fertilizer—
 - formulas, **Rec. XI**, 451.
 - requirements, **Rec. X**, 757; **XI**, 45.
- fertilizing, **Rec. VI**, 55, 143, 638, 727; **VII**, 34, 306, 505; **XI**, 251, 341, 1039; **XII**, 344, 845, 1044.
- fertilizing constituents removed from soil by, **Rec. VII**, 956; **IX**, 450.
- grafting, **Rec. V**, 496; **VII**, 772; **X**, 1044.
- gum flow, **Rec. XI**, 758.
- injurious effect of Dendrolene, **Rec. X**, 269.
- injury by—
 - frost, **Rec. VII**, 868.
 - fungicides, **Rec. XI**, 862.
 - insecticides, **Rec. XII**, 860.
 - severe cold, **Rec. X**, 251, 550.
- insect and fungus diseases, **Rec. X**, 871; **XI**, 270, 370.
- "insect lime" for, **Rec. VI**, 742.
- insects affecting, **Rec. V**, 497, 740, 1088; **VII**, 44, 316; **XI**, 366.
- inspection, **Rec. XI**, 66, 368.
- kerosene, effect on, **Rec. XII**, 165.
- leaf diseases, **Rec. X**, 1057.
- Monilia disease of, **Rec. X**, 763.
- mulching, effect on blossoming, **Rec. IX**, 841.
- notes, **Rec. II**, 395.
- old, treatment, **Rec. XI**, 153.
- overladen, treatment, **Rec. VI**, 143.
- planted at North Louisiana Station, **Rec. IV**, 197.
- planting, **Rec. III**, 107; **V**, 652.
- propagation from root cuttings, **Rec. II**, 218.
- protection—
 - against rabbits and mice, **Rec. VII**, 585.
 - by wind-breaks, **Rec. I**, 276.
 - from small animals, **Rec. II**, 24.
 - in California, **Rec. IV**, 84.
 - Florida, **Rec. XII**, 118.
- pruning, **Rec. III**, 42; **IV**, 728; **VI**, 549, 821; **IX**, 139, 841; **X**, 1044; **XI**, 547.
- pruning, effect on growth, **Rec. XII**, 1044.
- rejuvenation, **Rec. IX**, 357.
- relation of growth to flowering, **Rec. XII**, 1044.
- report, **Rec. IX**, 755.
- root—
 - galls on, **Rec. VIII**, 312.
 - killing by cold, **Rec. XII**, 147.
 - knots on, **Rec. IV**, 563; **VI**, 832.
 - pruning, **Rec. VII**, 505; **X**, 1040; **XI**, 599, 845.
- scale insects, **Rec. VII**, 316.
- seaweed as a fertilizer for, **Rec. XII**, 54.
- setting out for irrigation, **Rec. VII**, 505.
- spring protection, **Rec. VII**, 772.
- top-grafting, **Rec. VIII**, 985.
- training, **Rec. IX**, 951.
- transplanting, **Rec. VIII**, 408.
- tropical, **Rec. VII**, 772.
- washes, **Rec. VII**, 962.
- water content, **Rec. X**, 757.
- winterkilling, **Rec. XII**, 118.

Fruit trees—Continued.

winterkilling of roots, *Rec. IX*, 841.

winter—

protection, *Rec. V*, 1037; *XI*, 251.treatment, *Rec. VIII*, 603.wood-boring insects, *Rec. XI*, 173.woolly aphis on, *Rec. XI*, 174.yellowing of leaves, *Rec. VII*, 964.

Fruit—

twigs, temperature as affected by whitening, *Rec. XII*, 643.vinegar, analyses, *Rec. IX*, 982.wine, filtration, *Rec. XI*, 157.winter storage, *Rec. VII*, 505.

worm—

gooseberry, *Rec. IX*, 858.gray, notes, *Rec. XI*, 957.notes, *Rec. V*, 800; *X*, 569.yellowing of leaves, *Rec. VII*, 964.Fruits— (*See also* FRUIT.)acid and sugar in, *Rec. IV*, 920.after-ripening, *Rec. III*, 925.

American—

exclusion from Germany, *Rec. X*, 169.scale insects on, *Rec. XI*, 655; *XII*, 971.analyses, *Bul. 2*, 1, 90; *Rec. II*, 582; *III*, 162; *IV*, 45; *V*, 190, 922; *IX*, 353.and garden crops, compiled analyses, *Rec. VIII*, 408.

and vegetables—

digestibility, *Rec. IX*, 780.exhibit at World's Fair, *Rec. VI*, 993.for cultivation in North Carolina, *Rec. VII*, 131.for English markets, *Rec. VI*, 549.on the Gulf Coast, *Rec. VIII*, 134.value in diet, *Rec. IX*, 175.apparatus for sterilizing, *Rec. V*, 1051.

as affected by—

climate, *Rec. VI*, 56, 279, 638.freeze of 1899, *Rec. XII*, 50.mulching, *Rec. VI*, 638.rainfall, *Rec. VI*, 279.temperature at different stages of growth, *Rec. VII*, 587.as food for animals, *Rec. VI*, 76.related to bees, *Rec. X*, 353; *XII*, 774.asbestos, as a packing material, *Rec. XI*, 549.at Agassiz Experimental Farm, *Rec. XII*, 753.Colorado substations, *Rec. IV*, 352.breeding principles, *Rec. XI*, 861.

bush—

botany, *Rec. X*, 640.culture, *Rec. X*, 756.monograph, *Rec. X*, 756.winter protection, *Rec. VIII*, 55.butterflies and moths attacking, *Rec. XI*, 170.California, analyses, *Rec. VI*, 814.canning, *Rec. X*, 354, 963.

canning—

drying and preserving, *Rec. VI*, 821.season in California, *Rec. XII*, 559.citrus. (*See* CITRUS FRUITS.)classification, *Rec. XI*, 113.cold storage, *Rec. V*, 909; *VI*, 299, 993; *VII*, 308, 504, 505; *XI*, 349, 350; *XII*, 798.

Fruits—Continued.

condition, *Rec. III*, 183, 253; *IV*, 283.condition and acreage, *Rec. III*, 107.cross fertilization, *Bul. 2*, 1, 70; *Rec. VI*, 723; *VII*, 274; *IX*, 841, 899.crossing, *Rec. III*, 223; *IV*, 399.crossing and hybridizing, *Rec. IX*, 649; *X*, 252.diseases, *Rec. IV*, 51; *VII*, 141; *IX*, 760.

dried—

American, infestation with scale insects, *Rec. XI*, 656.analyses, *Rec. X*, 255.insects affecting, *Rec. VI*, 1002.sulphuring, *Rec. II*, 98; *III*, 532, 685; *V*, 589.

drying—

in California, *Rec. X*, 51.New South Wales, *Rec. VIII*, 985.notes, *Rec. VI*, 821; *VII*, 868.earliness *v.* quality, *Rec. VI*, 821.English, in America, *Rec. IX*, 51.evaporation, steaming before, *Rec. VIII*, 408.evaporation, *Rec. VI*, 821; *IX*, 755; *X*, 354; *XI*, 452.evergreen, pruning, *Rec. XI*, 1047.fertilization, *Rec. VII*, 34; *IX*, 1053; *XII*, 1044.fertilization by bees, *Rec. VI*, 566.fleshy, ripening, *Rec. IX*, 330, 1025.flowering periods, *Rec. XI*, 128; *XII*, 746.

food—

and medicinal value, *Rec. IV*, 842; *X*, 481.value, *Rec. VI*, 331; *VIII*, 330; *X*, 481, 1089.for Georgia, catalogue, *Rec. VI*, 820; *IX*, 649.Iowa, *Rec. III*, 788.Maine, *Rec. VI*, 726.Michigan, list, *Rec. II*, 63.Nebraska, *Rec. IX*, 754.Quebec, *Rec. VI*, 424.United States, catalogue, *Rec. IX*, 648.Virginia, *Rec. XII*, 151.Wyoming, *Rec. X*, 44.forcing, *Rec. VI*, 729; *VII*, 586, 772; *IX*, 246; *XI*, 153; *XII*, 753.*Fusicladium dendriticum* affecting, *Rec. XI*, 1057.garden, culture, *Rec. V*, 496.growth on hardpan, *Rec. X*, 254.hardiness in Iowa, *Rec. XI*, 252.home propagation, *Rec. IX*, 139.improvement, *Rec. VII*, 505; *XI*, 851.in British Columbia, *Rec. X*, 854.Michigan, *Rec. X*, 152.West Virginia, *Rec. IX*, 841.indigenous to Queensland, *Rec. X*, 355.

insects—

affecting, *Rec. V*, 402, 740; *VII*, 141; *IX*, 760; *XI*, 1057; *XII*, 61, 271, 664.and diseases affecting, remedies, *Rec. IV*, 42; *IX*, 62.irrigation, *Rec. III*, 886; *V*, 985; *VI*, 729; *VII*, 258; *VIII*, 130; *XI*, 1039; *XII*, 344, 345, 896.lists, *Rec. II*, 25, 295.localization of oils during formation, *Rec. V*, 1097.marketing, *Rec. II*, 426; *IX*, 949; *X*, 353.mulching, *Rec. V*, 583; *VI*, 636; *XI*, 548.mulching to retard blooming, *Rec. IX*, 841.

Fruits—Continued.

native, *Rec. X*, 48.

native—

evolution, *Rec. X*, 853.

improvement, *Rec. VI*, 993; *IX*, 558.

of northwest Canada, *Rec. XI*, 547.

new—

hardy, *Rec. XII*, 1044.

types, *Rec. IV*, 916; *VI*, 637.

varieties, *Rec. V*, 586; *VI*, 638.

notes, *Rec. IX*, 949; *XI*, 850.

nutritive values, *Rec. IV*, 920.

of arid regions, analyses, *Rec. VI*, 729.

Ontario, *Rec. IX*, 755.

Oregon, *Rec. XI*, 851.

the Tropics, *Rec. X*, 152.

orchard—

and garden, culture, *Rec. V*, 496.

small, varieties, *Rec. I*, 320, 321.

for family and market, *Rec. VIII*, 313.

fungicides for, *Rec. II*, 408.

hardiness of blossoms, *Rec. III*, 218.

list of, *Rec. II*, 694.

notes, *Rec. II*, 395, 741; *III*, 599; *VIII*, 702; *IX*, 246, 247.

varieties, *Bul. 2*, *I*, 109; *Rec. I*, 76; *II*, 5, 6, 7, 349, 426; *V*, 53, 190, 299, 302, 681, 873, 898, 985; *VI*, 816, 817; *VII*, 582, 587, 868; *X*, 253, 440; *XII*, 344, 345.

varieties for Rhode Island, *Rec. XI*, 937.

packing and shipping, *Rec. VI*, 821; *VII*, 308; *X*, 353, 758; *XII*, 345.

phosphates for, *Rec. IV*, 876.

planted at—

California Substation, *Rec. III*, 600.

Louisiana Station, *Rec. III*, 860.

pollination, *Rec. VIII*, 904; *XII*, 237.

pollination by bees, *Rec. IV*, 595; *XII*, 367.

pomaceous—

keeping qualities, *Rec. X*, 751.

pollination, *Rec. XI*, 447.

preservation, *Rec. IV*, 787; *VI*, 424, 549; *VII*, 307, 687; *VIII*, 719; *XI*, 453, 937; *XII*, 54.

preservation—

by alcoholic vapor, *Rec. IX*, 839.

lime, *Rec. X*, 758.

for exhibition, *Rec. VIII*, 314; *XI*, 649; *XII*, 53.

Sutherland process, *Rec. XII*, 1046.

preservatives, *Rec. II*, 98; *III*, 592; *XI*, 250, 549; *XII*, 53.

preserving in the Crimea, *Rec. VII*, 687.

protection—

during transportation, *Rec. VI*, 419.

from birds, *Rec. VI*, 991.

quality as affected by plant food, *Rec. IX*, 561.

ratio of perfect to abortive forms, *Rec. XI*, 818.

regulations of foreign governments regarding importations, *Rec. XII*, 775.

relationship between American and Eastern Asian, *Rec. VII*, 500.

ripening, *Rec. IX*, 330, 1025.

rôle of tannin, *Rec. IX*, 25.

rules for naming, *Rec. IX*, 678.

Fruits—Continued.

Russian, *Rec. IX*, 139; *X*, 352; *XI*, 647.

Russian varieties, *Bul. 2*, *I*, 189; *Rec. XI*, 547, scoring, *Rec. XI*, 252.

seedling—

on Pacific coast, *Rec. VI*, 143.

orchard, *Rec. VIII*, 313.

variations, *Rec. VIII*, 865, 985.

shipping, *Rec. X*, 849.

small, *Rec. V*, 585; *X*, 440.

small—

at Colorado substations, *Rec. IV*, 352.

compiled analyses, *Rec. IV*, 44.

cooperative experiments, *Rec. X*, 48.

cross fertilization, *Rec. VII*, 274.

cultivation, *Rec. X*, 97.

culture, *Bul. 2*, *I*, 31, 66; *Rec. V*, 300; *VI*, 221, 637, 992; *VIII*, 134, 701, 792; *X*, 152.

culture experiments, *Rec. III*, 886; *IV*, 253; *V*, 984; *VIII*, 314, 792; *XII*, 229.

culture in Wisconsin, *Rec. VII*, 959.

fertilizer experiments, *Rec. XI*, 341; *XII*, 344.

forcing, *Rec. XII*, 753.

fungus diseases, *Rec. IV*, 51.

growing in high latitudes, *Rec. XII*, 548.

irrigation, *Rec. VIII*, 130; *XII*, 896.

methods of reporting yield, *Rec. II*, 267.

mulching to retard blossoming, *Rec. IX*, 841.

notes, *Rec. VIII*, 890; *IX*, 246, 247; *X*, 48, 254; *XI*, 850.

novelties, *Rec. IX*, 450.

protection from frost, *Rec. XII*, 346.

varieties, *Bul. 2*, *I*, 23; *Rec. I*, 76; *IV*, 253; *V*, 53, 190, 299, 300, 302, 585, 681, 873, 898, 982, 985, 1076; *VII*, 34, 215, 582, 587, 868; *XII*, 344, 345.

varieties for Rhode Island, *Rec. XI*, 937.

splitting, cause, *Rec. X*, 519.

sprayed, danger to health. (*See footnote, p. 66.*)

sprayed, mineral residues in, *Rec. V*, 793; *VII*, 969.

substitution of domestic for foreign, *Rec. X*, 549, 552.

sulphured, examination, *Rec. X*, 255.

sulphuring, *Rec. V*, 589.

surplus, utilization, *Rec. XI*, 452.

thinning, notes, *Rec. VI*, 299, 729; *IX*, 48, *X*, 46, 152, 197, 254, 354, 848.

under glass, *Rec. VII*, 772.

use in Germany, *Rec. XII*, 780.

utilization, *Rec. IX*, 755; *XI*, 452.

varieties, *Rec. II*, 300.

varieties—

for Colorado, *Rec. X*, 152.

Michigan, *Rec. VII*, 960.

the United States and Canada, *Rec. XI*, 544.

varieties, running out, *Rec. IV*, 876.

variety tests in Ontario, *Rec. IX*, 755.

waxlike constituent, *Rec. VI*, 615.

wild, promising varieties in North Dakota, *Rec. II*, 267.

yielding rennet, *Rec. V*, 1049.

Fuchsias—

- cross fertilization, Rec. XII, 613.
- fertilizer experiments, Rec. IX, 141.
- notes, Rec. X, 855.

Fucus—

- furcatus*, analysis, Rec. VII, 573.
- nodosus*, analyses, Rec. VI, 630.
- vesiculosus*—
 - analyses, Rec. VI, 630.
 - notes, Rec. IV, 715.

Fuel—

- chemical and calorimetric investigations, Rec. XII, 1007.
- heat of combustion, Rec. III, 924; XII, 612.
- value of—
 - asphalt, Rec. VI, 942.
 - different woods, Rec. V, 129.
 - digested nutrients, Rec. VII, 597.
 - fat pine knots, Rec. VI, 942.
 - feeding stuffs, Rec. III, 386; IV, 935.
 - foods, Rec. XI, 1069, 1075, 1076.
 - petroleum, Rec. VI, 942.
 - Texas coal, Rec. VI, 942.
 - Wyoming coal and oil, Rec. VI, 942.

Fuels, Utah—

- composition, Rec. III, 625.
- heat value, Rec. III, 625.

Fuirena—

- scirpoidea*, notes, Rec. IX, 812.
- squarrosa*, notes, Rec. IX, 812.

Fulgoridæ, luminosity, Rec. VII, 792.

Fuller's earth from Rosswein, Saxony, Rec. III, 831.

Fuller's rose beetle, Rec. X, 168.

Fuller's teasel—

- culture experiments, Rec. IX, 41.
- notes, Rec. III, 598.

Fumaric acid, physiological behavior, Rec. IX, 524.

Fumarin in *Glaucium corniculatum*, Rec. V, 252.*Fumeca nitidella*, notes, Rec. XI, 766.

Fumes of sulphur as a fungicide, Rec. V, 400.

Fumigation—

- advantages, Rec. XII, 665.
- cover for bisulphid of carbon, Rec. VI, 1003.
- for greenhouse pests, Rec. VII, 401, 882.
- insects, Rec. XII, 369.
- of infested animals, Rec. IX, 255.
- tents, Rec. XII, 369.
- with hydrocyanic-acid gas, Rec. XII, 662.

Fumigator—

- for hydrocyanic-acid gas, Rec. XI, 951.
- scale insects, Rec. IV, 84.

Fumitory, notes, Rec. VIII, 703.

Functions of leaves, Rec. IX, 621.

Fungi—

- activity of oxidizing ferment, Rec. VIII, 472.
- affecting the teeth, Bul. 2, II, 94.
- Alabama, new species, Rec. X, 518.
- alphabetical list, Rec. IX, 726.
- analytical synopsis, Rec. V, 279.
- and fungicides, text-book, Rec. V, 1104.
- phanerogams, relation between evolution of organs, Rec. X, 929.
- appearance of sex, Rec. X, 23.
- aquatic, new, Rec. VII, 371.

Fungi—Continued.

as affected by—

- acids of butter, Rec. VIII, 835.
- Bordeaux mixture, Rec. VIII, 316.
- carbon bisulphid, Rec. VII, 928.
- chemicals, Rec. VII, 279, 926; XI, 910.
- etheral oils, Rec. X, 929; XI, 168.
- light, Rec. VI, 389, 507; VII, 95; VIII, 955; X, 1013; XI, 321.
- weather, Rec. XI, 754; XII, 354.

assimilation of nitrogen, Rec. VIII, 29.

Australian—

- catalogue, Rec. XI, 321.
- handbook, Rec. VI, 557.
- new species, Rec. VII, 657, 748; VIII, 28; IX, 361.

biological studies, Rec. VIII, 996; XI, 322.

Brazilian, new species, Rec. IX, 361.

budding, morphology, Rec. VII, 748.

cell—

- membranes, Rec. VI, 195, 506.
- walls, Rec. X, 417.

cells, anatomy, Rec. V, 345.

centrospheres in, Rec. VI, 280.

chemical irritability, Rec. VI, 17.

classification, Rec. IV, 956; IX, 28.

collection and preparation for herbarium, Rec. IX, 1027.

common species, Rec. V, 1030.

comparative morphology, Rec. VI, 557.

composition of membranes, Rec. IX, 921.

conception of species, Rec. X, 418.

conidia formation, Rec. XI, 710.

cultures, Rec. VI, 487; VII, 412, 656, 882; IX, 361, 471;

decomposition of glucosids, Rec. XI, 322.

destroying insects, Bul. 2, II, 94.

development, Rec. VI, 147.

diastatic, utilization, Rec. IX, 924.

distribution in Germany, Rec. VIII, 63.

economic, Rec. VIII, 175.

edible— (See also MUSHROOMS.)

- analyses, Rec. X, 376, 378.
- and injurious, Rec. IX, 450.
- poisonous, Rec. X, 551; XI, 649; XII, 24.

ash analyses, Rec. X, 378.

digestibility, Rec. X, 377, 378.

of Japan, Rec. XI, 1075.

effect on—

- autumn coloration of foliage, Rec. X, 1050.
- form and character of plants, Rec. XI, 121.
- fruitfulness of host, Rec. X, 1049.
- humic substances, Rec. XII, 912.
- starch distribution, Rec. X, 923.
- toxins, Rec. IX, 1092.

entomogenous, Rec. IX, 361.

ferment analogous to emulsin in, Rec. V, 819.

field observations, Rec. VI, 486.

filamentous, development as affected by deleterious substances, Rec. XI, 910.

fleshy, in greenhouses, Rec. XI, 424.

formation of diastase, Rec. X, 417.

forming citric acid, Rec. IX, 726.

fossil, notes, Rec. IV, 955.

from Germany, new species, Rec. VII, 838.

Mississippi, new species, Rec. VIII, 749.

general account, Rec. II, 580.

Fungi—Continued.

- germination as affected by formalin, Rec. XI, 469.
- glycogen in, Rec. VII, 651; VIII, 105.
- growth—
 - as affected by certain substances, Rec. XII, 314, 1014.
 - affected by gravity, Rec. IX, 726.
 - affected by media, Rec. XII, 718.
 - in oil, Rec. XII, 313.
- heteræcious, culture experiments, Rec. X, 156.
- history of investigations, Rec. IV, 51.
- immunizing host plants, Rec. X, 1050.
- in greenhouses of Berlin Botanic Gardens, Rec. XII, 62.
- soils, new method of destroying, Rec. IX, 852.
- wine making, Rec. V, 449.
- Indian, Rec. VIII, 109.
- indigenous, Rec. VII, 746.
- injurious—
 - in Canada, Rec. X, 266.
 - Prussia, Rec. VIII, 801.
 - Russia, Rec. X, 266.
 - nature and treatment, Rec. X, 267.
 - of greenhouses, Rec. V, 348.
 - to useful plants, Rec. IV, 50.
 - weed seedlings, Rec. V, 401.
 - weeds, Rec. IV, 50.
- laccase in, Rec. VII, 468; VIII, 290.
- limit of concentration of nutrient solutions, Rec. XII, 520.
- limits of temperature for germinating spores, Rec. II, 502.
- liquefaction of gelatin by, Rec. VII, 659.
- Mexican, new species, Rec. IX, 420.
- microscopic study, Rec. IX, 852.
- mineral food, Rec. VI, 968.
- mold—
 - composition, Rec. VIII, 867.
 - morphology and biology, Rec. VII, 39.
 - temperature limits, Rec. VIII, 290.
- nature and treatment, Rec. IV, 55.
- new species, Rec. I, 169; IV, 956; VI, 738; VII, 39, 225, 371, 513, 563, 748, 838, 876; VIII, 289, 470, 567, 671, 867, 956; IX, 28, 227, 420, 659; X, 57, 272, 725; XI, 361; XII, 24.
- new species, descriptions, Rec. XII, 656.
- nitrogenous—
 - coloring material, Rec. X, 23.
 - constituents, Rec. XII, 422.
- North American, new, Rec. VII, 468; IX, 420.
- notes, Rec. I, 253; II, 33, 220, 303; VI, 560.
- nutrition, Rec. VII, 659, 839.
- of cultivated plants, Rec. VI, 909.
- Florida, Rec. XII, 1015.
- forest trees in India, Rec. IX, 361; X, 266; XI, 950.
- grain, new, Rec. VI, 909.
- Kansas, new species, Rec. I, 169.
- malt, Rec. VII, 658.
- middle Europe, Rec. XI, 424.
- Mississippi, notes, Rec. VII, 371.
- Missouri, Rec. I, 168.
- molds, Rec. VII, 658.
- rices, Rec. V, 816; X, 266.
- Wheat rust, Rec. I, 204.
- on mushroom beds, Rec. V, 347.
- weeds, Rec. IV, 50; V, 401, 827; VI, 823.

Fungi—Continued.

- on wheat, Rec. X, 561.
 - oxidizing ferments in, Rec. VII, 564.
 - parasitic, Rec. X, 1057.
 - parasitic—
 - and injurious insects, Rec. VII, 965.
 - as affected by chemical agents, Rec. IV, 518.
 - affected by host plants, Rec. IV, 872.
 - affected by weather, Rec. X, 858; XI, 469.
 - biology, Rec. VI, 647; XI, 322.
 - evolution, Rec. VIII, 412.
 - in the Mediterranean region, Rec. V, 1099.
 - influence on host plants, Rec. IV, 967.
 - list, Rec. II, 650.
 - new species, Rec. VI, 1000.
 - notes, Rec. II, 241.
 - of Cherson, Rec. IX, 361.
 - cultivated plants, Rec. X, 266.
 - Java, Rec. XII, 461, 1057.
 - Texas, Rec. II, 175.
 - Vermont, Rec. XI, 356; XII, 261.
 - Wisconsin Valley, Rec. IX, 852.
 - on genus *Allium*, Rec. II, 481.
 - insects, Rec. IX, 576.
 - prevention, Rec. IX, 361.
 - spores of, Rec. V, 653.
 - study, Rec. VII, 179.
 - pathology, Rec. VIII, 412.
 - physiology of, Rec. V, 1030.
 - physiological—
 - anatomy, Rec. VIII, 290.
 - researches, Rec. V, 1030.
 - pigments produced, Rec. IX, 422.
 - position in plant kingdom, Rec. XII, 24.
 - preservation, Rec. IX, 227.
 - prevalent at South Dakota Station, Rec. IV, 50.
 - provisional host index, Rec. III, 810.
 - pyrenomycetous, morphology, Rec. VIII, 290.
 - prototypes, Rec. VII, 563.
 - recent works, Rec. VII, 371.
 - redescription of Berkeley's types, Rec. VIII, 289.
 - rôle of cell nucleus, Rec. VII, 466.
 - saccharin substances, Rec. II, 457.
 - saprophytic, of Iowa, Rec. VIII, 471.
 - secreting organs, Rec. VII, 466.
 - sexual reproduction, Rec. VI, 17.
 - smut, notes, Rec. II, 749.
 - spore formation, Rec. XII, 961.
 - spread of, by snails, Rec. VIII, 240.
 - studies, Rec. VII, 656, 838; IX, 1027.
 - sugar forming, Rec. VII, 279.
 - tannins, Rec. VII, 468, 749.
 - tendrils in, Rec. VI, 195.
 - tyrosinase in, Rec. VIII, 290.
 - utilization of rubidium salts, Rec. X, 417.
 - variations under influence of media, Rec. IX, 227; X, 613.
 - West Indian, new species, Rec. IX, 28.
 - wood-destroying, Rec. XII, 219.
 - wood-frequenting, biology, Rec. XI, 322, 516.
- Fungicide—
- adhesive, Rec. XI, 262.
 - and insecticide, new, Rec. XI, 60.
 - containing potassium permanganate, Rec. XI, 166.
 - powders, apparatus for applying, Rec. XI, 263.

Fungicides— (See also special forms.)

- adherence, Rec. X, 1056.
- analyses of ingredients, Rec. IV, 55.
- and fungi, Rec. V, 1104.
- and insecticides—
 - apparatus for applying, Rec. VI, 739.
 - combined, Rec. I, 294; II, 24, 217, 408, 586; III, 23, 96, 101, 357, 403, 480, 523, 621, 864, 892, 926; IV, 42, 561, 838, 927.
 - combined, for apples, Rec. II, 660.
 - combined, for potatoes, Rec. II, 24.
 - new, Rec. V, 684; XI, 60.
 - preparation and use, Rec. VI, 739; IX, 676.
 - use, Rec. IX, 876.

apparatus for applying, Rec. IV, 43, 55; V, 62, 309, 310; VI, 739.

comparative tests, Rec. V, 683.

copper—

- and soap mixtures, Rec. XI, 1060.
- compounds as, Rec. VII, 271.
- increasing adhesiveness, Rec. XI, 1061.
- preparation, Rec. XII, 262.
- salts as, Rec. II, 33.

cost, Rec. II, 715.

effect, Rec. IX, 61.

effect on—

- foliage, Rec. III, 357.
- germination of corn, Rec. V, 881.
- germination of seeds, Rec. VI, 301, 439.
- healthfulness of fruit. (See footnote, p. 66.)
- mustard, Rec. XI, 462.
- peach foliage, Rec. V, 684; VII, 874.

experiments, Bul. 2, II, 87; Rec. II, 599, 633; III, 23, 197; X, 870.

field experiments, Rec. VI, 267.

for apple scab, Rec. II, 32, 633, 650; III, 620, 864; IV, 399; V, 61, 1077.

bean anthracnose, Rec. IV, 553; VI, 996.

blackberry rust, Rec. IV, 43.

California vine disease, Rec. IV, 499.

carnation rust, Rec. VII, 402.

cherries, Rec. III, 23.

cherry leaf spot, Rec. III, 10; VII, 787.

club root fungus, Rec. VI, 994.

corn and oat smut, Rec. V, 59.

corn smut, Rec. III, 287, 787.

currant leaf spot, Rec. VIII, 995.

flax, Rec. II, 496.

gooseberry leaf spot, Rec. VIII, 995.

for grape—

- anthracnose, Rec. II, 714; III, 10; IX, 961.
- black rot, Rec. II, 322, 328, 633, 713; III, 10, 864; XI, 357.
- diseases, Bul. 2, II, 135.
- mildew, Bul. 2, II, 135; Rec. IX, 961.

for grapes, Rec. II, 408; III, 23; IV, 500.

hollyhock rust, formula for, Rec. II, 504.

lichens on pear trees, Rec. IV, 955.

nursery stock leaf blight, Rec. VI, 556.

orchard fruits, Rec. II, 408.

peach rot, Rec. IV, 835.

for pear—

- leaf blight, Rec. III, 144.
- scab, Rec. II, 49, 322; V, 61.

for plum leaf spot, Rec. III, 10.

potato blight, Rec. II, 293, 633; III, 10; IV, 471, 928; VIII, 138.

Fungicides—Continued.

for potato rot, Rec. IV, 399, 471, 928; V, 425; VII, 872.

potato scab, Rec. II, 61; III, 619; IV, 560; VI, 908, 995.

quince diseases, Rec. IV, 658.

quince leaf spot, Rec. III, 10, 770.

raspberry anthracnose, Rec. VIII, 995.

rusts, Rec. V, 497; VI, 307.

shot-hole fungus of plum, Rec. III, 621.

smuts of oats and wheat, Rec. VIII, 268.

sorghum rust, Rec. III, 287.

stinking smut of wheat, Rec. II, 220.

strawberry leaf blight, Rec. II, 405.

strawberry rust, Rec. III, 10.

tomato diseases, Rec. VI, 995.

wheat smut, Rec. III, 225, 286.

new, Rec. XI, 651.

new—

copper, Rec. X, 156.

formula, Rec. VII, 147.

paper on, Rec. II, 267.

powdered *v.* liquid, Rec. XI, 60.

preparation and use, Bul. 2, I, 67; Rec. II, 12, 169, 491, 609, 654, 715; III, 11, 23, 172, 217, 297, 470, 525, 620, 808, 871, 889; IV, 50, 55, 169, 560, 561, 729, 828, 838, 927; V, 62, 190, 206, 592, 686; VI, 61, 62, 437, 559, 647, 724, 734; VII, 44, 45, 141, 231, 310, 876, 965; VIII, 63, 68, 140, 149, 240, 318, 507, 608, 895, 995, 996, 999; IX, 62, 74, 75, 157, 252, 262, 360, 458, 657, 675, 852; X, 60, 157, 169, 267, 273, 366, 370, 373, 448, 455, 457, 470, 562, 661, 1051; XI, 60, 174, 258, 262, 478, 565, 659, 753; XII, 263, 354, 470, 572, 581.

with insecticides, Rec. V, 62; VI, 559, 651.

Fungiroid—

analyses, Rec. IX, 919.

as a fungicide, Rec. IX, 360.

for potato rot, Rec. VIII, 800; IX, 852.

Fungus—

attacks of variegated plants, Rec. X, 59.

and bacterial diseases of plants, bibliography, Rec. V, 1077.

insect injuries, Rec. VI, 61; VII, 700.

cellulose, studies, Rec. V, 252; VI, 869.

cultures—

for destroying locusts, Rec. X, 1077.

use of must for, Rec. V, 539.

disease—

new, in Iowa, Rec. III, 810.

of apples, Rec. VIII, 412.

hackberry, remedies, Bul. 2, II, 35.

iris bulb, Rec. XI, 360.

Silpha opaca, Rec. VI, 237.

diseases—

and forest fires, Rec. V, 540.

bibliography, Rec. V, 1078; X, 267.

combating, Rec. XI, 67.

field notes, Rec. II, 455.

for repression of insects, Rec. VI, 655.

in Hanover, Rec. VIII, 801.

the German colonies, Rec. VII, 965.

literature, Rec. VI, 148.

notes, Rec. VII, 39; XI, 259.

of agricultural plants, Rec. XII, 767.

cultivated plants, Rec. XI, 59, 361.

field crops, Rec. IV, 971.

Fungus—Continued.

- diseases—continued.
- of grapes, Rec. XI, 362.
 - plant tissues, Rec. XII, 214.
 - plants, Rec. V, 61, 415, 438, 821, 879.
 - plants, nature and treatment, Rec. V, 61, 194, 415, 548, 627, 821, 879, 989; VI, 302.
 - sugar beet, Rec. XI, 162.
 - report, Rec. III, 264.
 - soil treatment, Rec. VII, 179, 309, 587.
- entomogenous, artificial culture, Rec. V, 1037.
- flora—
- British, text-book, Rec. VII, 370.
 - of Hanover, Rec. VI, 278.
- foes of the farmer, Rec. IX, 851; X, 457.
- gnats, notes, Rec. V, 1034.
- growth and nutrient solution, Rec. VII, 749.
- membranes, structure, Rec. V, 729.
- mycelium penetrating cell membranes, Rec. VII, 372.
- on butter, Rec. VI, 1025.
- parasites—
- of cereals, Rec. XI, 166.
 - cultivated Rosaceæ, Rec. XI, 166.
 - grass seeds, Rec. XI, 166.
 - weeds, Bul. 2, II, 37.
- poisonous, notes, Rec. V, 347.
- spores—
- classification, Rec. IX, 328.
 - germination, Rec. VII, 310, 746; IX, 61, 1026; X, 857.
 - wood-destroying, Rec. X, 415.
- Funkia*—
- cærulea*, notes, Rec. IV, 654.
 - undulata*, anthracnose, Rec. IV, 53.
 - undulata variegata*, notes, Rec. V, 401.
- Furcraea gigantea*, notes, Rec. VI, 278.
- Furfuroids—
- distribution and biological importance in the soil, Rec. XI, 818.
 - function in sugar beets, Rec. XI, 321.
 - physiological importance in plants, Rec. XI, 121.
- Furfurol—
- condensation with phloroglucin, Rec. VII, 557.
 - constituents of plants, Rec. VI, 869.
 - determination, Rec. VI, 111; 189.
 - formation from—
 - cellulose, Rec. X, 407, 412.
 - levulose, Rec. VII, 90.
 - starch, Rec. XI, 619.
 - starch and derivatives, Rec. X, 412. - quantitative determination, Rec. VII, 557.
 - reactions of alkaloids, Rec. V, 126.
 - test for pentosans, Rec. VII, 462, 651, 744.
- Furnace—
- flue deposit, analyses, Rec. XII, 39.
 - for laboratories, Rec. XII, 1008.
 - slag, effect on sugar beets, Rec. XI, 540.
- Furniture, insects affecting, Rec. VI, 742.
- Furrow maker, Rec. VIII, 352.
- Furs—
- destruction of insects attacking, Rec. VI, 655.
 - protection from insects, Rec. V, 517.

Furze, culture experiments, Rec. IX, 41.

Fusarium—

- affecting asters, Rec. XI, 261.
 - disease of potatoes, Rec. X, 266.
- Fusarium*—
- aqueductum*, notes, Rec. VII, 371.
 - arcuatum*, notes, Rec. V, 879.
 - culmorum*, notes, Rec. III, 689; IV, 345, 414, 415.
 - limonis*, notes, Rec. XII, 463, 655.
 - lycopersici*, notes, Rec. III, 10; VII, 222.
 - niveum*, notes, Rec. X, 262.
 - roseum*, notes, Rec. XI, 161.
 - sarcochroum*, notes, Rec. VI, 909.
 - solani*, notes, Rec. II, 32; VII, 875; IX, 851.
 - sp., germination tests, Rec. IV, 53.
 - sp., notes, Rec. IV, 832.
 - vasinfectum*, notes, Rec. IV, 831.
- Fusariums, parasitic, studies, Rec. XII, 653.
- Fusel oil—
- as a preservative for milk, Rec. II, 331.
 - determination in alcoholic liquids, Rec. XI, 313.
- Fusicladium*—
- betulae* upon birch leaves, Rec. VII, 774.
 - dendriticum*. (See APPLE SCAB.)
 - eriobotryæ*, notes, Rec. X, 764.
 - fagopyri*, n. sp., attacking buckwheat, Rec. X, 155.
- pyrinum*—
- nature and treatment, Rec. IV, 658.
 - notes, Rec. II, 246, 482; III, 313, 403; V, 987; VI, 558, 560; VII, 220; X, 1057; XII, 262, 911.
- Fusicoccum abietinum*, notes, Rec. VI, 909.
- Fusisporium culmorum*. (See FUSARIUM CULMORUM.)
- Gadflies—
- notes, Rec. XII, 99, 272.
 - remedies, Rec. XI, 653, 950.
- Gadfly larvæ of cattle, development, Rec. X, 167.
- Galactan—
- determination in feeding stuffs, Rec. IX, 372.
 - distribution in agricultural plants and seeds, Rec. VIII, 555.
- Galactase—
- in milk, Rec. X, 785; XI, 578, 579; XII, 87.
 - the ripening of cheese, Rec. XII, 88, 484, 682, 801.
- Galactia*, n. sp., notes, Rec. VII, 466.
- Galactite from seed of yellow lupines, Rec. VII, 834.
- Galactose—
- and arabinose, separation, Rec. VIII, 198.
 - chemical structure, Rec. X, 116.
 - determination by Fehling's solution, Rec. X, 117.
 - fermentation, Rec. VIII, 742; XII, 915.
 - formation, Rec. VIII, 286.
 - sugar from, Rec. VII, 365.
- Galanthus*, diseases, Rec. IX, 457.
- Galega officinalis*—
- analyses, Rec. VI, 569.
 - notes, Rec. III, 51, 85; VI, 404, 531.
- Galeopsis, monograph of, Rec. V, 648.
- Galeruca*, estivation, Rec. XI, 656.

Galeruca—*caprea*, Rec. IX, 862.*semipulata* on leaves of *Ficus macrophylla*, Rec. XI, 561.*xanthomelæna*. (See GALERUCELLA LUTEOLA.)*Galerucella*—*cavicolis*, notes, Rec. X, 766, 1067; XI, 366.*luteola*, notes, Rec. II, 669; III, 298, 415; V, 64, 403; VI, 649, 835; VII, 145, 313, 696; VIII, 146, 418, 503, 804; IX, 662, 962; X, 660, 1066, 1067; XI, 952; XII, 158.

(See also ELM LEAF BEETLE, IMPORTED.)

Galerucella, estivation, Rec. XI, 656.

Gales, northwest, of the southern Blue Ridge and Piedmont region, Rec. XI, 221.

Galinsoga parviflora, notes, Rec. IX, 454.*Galium*—*aparine*, notes, Rec. V, 912.*mollugo*, notes, Rec. IX, 454.

Galium, revision of species, Rec. X, 416.

Gall—

formation—

and the transformation of *Cynips calicis*, Rec. VIII, 242.

studies, Rec. IX, 966.

with reference to tanning products, Rec. VII, 72.

formations, classification, Rec. XI, 562.

immunizing power in rinderpest, Rec. X, 91.

insects and their host plants, Rec. VI, 151; X, 68.

making—

coccids, Rec. VII, 516, 968.

diptera, new species, Rec. IX, 1071.

mites—

new species, Rec. IV, 873.

notes, Rec. V, 61.

on hackberry, notes, Bul. 2, II, 35.

wasps—

new species, Rec. IX, 966.

notes, Rec. XII, 975.

worms on violets, Rec. IV, 54.

Galled lands, reclaiming, Rec. II, 375.

Galleria mellonella, notes, Rec. VI, 149, 315; VIII, 906, 911.

Galleta grass. (See GRAMA, BLACK.)

Gallic acid—

and tannin, color reaction, Rec. IX, 25.

determination, Rec. XII, 610.

Galls—

anatomical studies, Rec. IX, 812.

effect on plant cells, Rec. VIII, 748.

floral, Rec. VII, 694.

naming, Rec. IX, 1071.

on plants—

oriental, Rec. IX, 61.

production, Rec. III, 749.

origin and formation in spruces, Rec. IX, 852.

underground, of beets and crucifers, Rec. X, 972.

Gallinacæ, immunity to human tuberculosis, Rec. IX, 94.

Galphimia humboldtiana, notes, Rec. III, 104.

Galton curves as showing discontinued variation, Rec. VI, 280.

Gama grass—

analyses, Rec. V, 64, 65.

hay, analyses, Rec. VIII, 810.

notes, Rec. II, 601.

Gambias, France, poultry school, description, Rec. IX, 298.

Gambier as a tannin plant, Rec. V, 130.

Game—

determination of age, Rec. X, 584.

laws regulating transportation and sale, Rec. XII, 831.

officials and organizations concerned in protection, Rec. XII, 617.

seasons, shipment, and sale, Rec. XII, 830.

Gamecocks, hybridizing, Rec. IX, 1031.

Gametes, motile, *Hæmatococcus* for class demonstration, Rec. VI, 487.*Gammarus locusta*, notes, Rec. VII, 44.

Gangrene—

in animals, Rec. XII, 790.

pathology, Rec. XII, 393.

Gapes in fowls—

notes, Rec. V, 1085; X, 393, 698; XII, 894.

remedies, Rec. VII, 426; IX, 96.

Gapeworms—

notes, Rec. XI, 495; XII, 294.

remedies, Rec. VII, 426; XI, 199, 392.

Garbage—

ashes, analyses, Rec. VII, 669; VIII, 117; IX, 825, 935; X, 232, 428.

disposal in foreign countries, Rec. XI, 831.

fertilizer, analyses, Rec. X, 230, 426, 834.

plant product, analyses, Rec. XII, 933.

refuse, analysis, Rec. III, 623.

Garcinia mangostana, notes, Rec. VI, 819.

Garden—

alpine, experimental in Austria, Rec. V, 657.

at Bernburg Station, Rec. V, 752.

botanic, at California University, Rec. V, 563; VIII, 671.

chafer, notes, Rec. VIII, 612.

crops—

ammonium sulphate as a top dressing, Rec. IX, 51.

as affected by drought and shade, Rec. X, 435, 449.

compilation of analyses, Rec. II, 582; IX, 357.

culture and acclimatization, Rec. VII, 504.

fertilizer experiments, Rec. IX, 357.

fertilizers for, Rec. IX, 754; XI, 599.

insects affecting, Bul. 2, II, 119; Rec. X, 271; XI, 765; XII, 361.

irrigation, Rec. VIII, 127, 600; IX, 645; XI, 294, 547.

docks, Rec. V, 875.

experimental at Deventer, Rec. V, 669.

flea hopper, notes, Rec. XI, 264.

fruits, culture, Rec. V, 496.

herbaria, preservation of specimens, Rec. VI, 489; VII, 132.

irises, notes, Rec. VIII, 985.

labels for use in, Rec. V, 875.

lemon, notes, Rec. III, 532.

making suggestions for utilizing home grounds, Rec. X, 50.

pests, Rec. VI, 315; VIII, 911, 912; IX, 660.

plants—

fungus and insect enemies, Rec. IX, 760; XI, 765.

hardy, notes, Rec. VII, 586; VIII, 408.

shrubs, notes, Rec. X, 254.

snail, distribution, Rec. IX, 230.

Garden—Continued.
 soil, analyses, Rec. II, 12.
 tillage, Rec. VII, 35, 404.
 webworm—
 notes, Bul. 2, I, 31; Rec. II, 734; VI, 315.
 remedies, Rec. I, 12.

Gardeners, education, Rec. VI, 756.

Gardening—
 bacteria in, Rec. VIII, 314.
 Danish, Rec. VI, 56.
 dictionary supplement, Rec. XII, 247.
 for farmers, Rec. VI, 56.
 guide to, Rec. IX, 949.
 in Germany, Rec. XII, 1043.
 Lucknow, Rec. VII, 771.
 landscape, Rec. III, 107; IX, 140, 247, 650, 756,
 852, 853; X, 355, 1044; XI, 49, 50.
 manual, Rec. VIII, 793.
 market. (See MARKET GARDENING.)
 practical guide, Rec. IX, 949.
 rotations in, Rec. X, 151.
 treatise, Rec. XII, 753, 952.
 vegetable, Rec. VIII, 408, 793, 976; IX, 50, 949;
 X, 151, 439, 853; XII, 952.
 winter, Rec. IX, 840.

Gardens—
 automatic sprinkling, Rec. VI, 299.
 English, Rec. XII, 54.
 fruit and vegetable, for farmers, Rec. VI,
 993.
 ornamental, Rec. X, 153, 855.

Gargaphia angulata, notes, Rec. XII, 362.

Garget. (See MAMMITIS.)

Garlic—
 disease due to *Macrosporium asiaticum*, Rec. V,
 498.
 fertilizer formula, Rec. XII, 851.
 for gape disease of fowls, Rec. IX, 96.
Macrosporium parasiticum on, Rec. V, 438.
 notes, Rec. III, 893.
 sweet-scented, Rec. VIII, 892.
 wild—
 eradication, Rec. VIII, 988.
 notes, Rec. IX, 956.

Garrya elliptica, notes, Rec. V, 589.

Gärtner's prepared milk—
 analyses, Rec. VIII, 821.
 digestion, Rec. VIII, 821.

Gas—
 apparatus for—
 generation, Rec. XII, 309.
 washing and absorbing, Rec. XII, 109.
 blast lamp, Rec. XII, 309.
 exchange between—
 animals and air, Rec. VI, 115.
 human beings, apparatus for measuring,
 Rec. VI, 332.
 leaves and atmosphere, Rec. VI, 782.
 plants, Rec. VI, 787.
 plants and animals, Rec. V, 729.
 root tubercles of leguminous plants, Rec.
 IV, 388, 506.
 exchange, respiratory, during eating, Rec. V,
 259.
 formation in pancreatic digestion, Rec. X, 81.
 from superphosphate factory, effect on rye,
 Rec. VII, 225.
 generating apparatus, Rec. IX, 723; XII, 309.
 generator, Rec. XII, 109.

Gas—Continued.
 generator—
 new, Rec. VII, 273, 653; VIII, 743.
 self-regulating, Rec. IX, 621.
 in barnyard manure, analyses, Rec. V, 147;
 XII, 623.

lime—
 analyses, Rec. II, 5; III, 357, 523; IV, 25;
 XII, 624.
 as an insecticide, Rec. II, 720.
 effect on soils and waters, Rec. XII, 124.
 fertilizing value, Rec. VII, 293.
 for sweet potato diseases, Rec. III, 307.
 turnip gall weevil, Rec. VI, 917; IX, 74.
 wireworms, Rec. III, 449.
 valuation, Rec. XI, 528.

liquor—
 effect on soils and water, Rec. XII, 124.
 ammoniacal, analyses, Rec. IV, 436.
 fixation of ammoniacal nitrogen in, Rec.
 IV, 293.
 for destroying weeds, Rec. XII, 253.
 nematods, Rec. VII, 695.

manufacture, by-products of, Rec. V, 651.

natural, analyses, Rec. VII, 366.

new, in the atmosphere, Rec. X, 325, 412.

plant, notes, Rec. IV, 653.

pressure—
 effect on plant growth, Rec. IV, 871, 958.
 regulator, Rec. X, 315.
 producing bacteria, Rec. VII, 659.
 producing bacteria, relation to cheese ripen-
 ing, Rec. VIII, 730.
 production by bacteria, Rec. VIII, 473.
 regulator, improved, Rec. VII, 653.
 tar, and water as an insecticide, Rec. II, 416.
 treatment for scale insects, Rec. III, 601;
 IV, 84.

Gascardia madagascarensis, notes, Rec. VI, 837.

Gaseous—
 exchange and expenditure of energy of a
 bicycle rider, Rec. IX, 1079.
 fermentation in canned goods, Rec. VIII, 699.

Gases—
 and smoke, effect on growth of conifers, Rec.
 VIII, 794.
 and vapors, effect on—
 ova of insects, Rec. VIII, 808.
 plants, Rec. X, 822.
 apparatus for desiccating, Rec. II, 482.
 atmospheric, spectrum, Rec. XII, 926.
 effect on—
 protoplasm and cell division, Rec. XI, 120.
 stomata, Rec. XI, 115.
 transpiration of plants, Rec. X, 825.
 in the paunch of cattle, investigation, Rec.
 III, 656.
 water, apparatus for examining, Rec. VI,
 15.
 intestinal, collecting and analyzing, Rec. XI,
 706.
 liquefaction of—
 manual, Rec. XI, 511.
 rise and development, Rec. XI, 619.
 measurement, Rec. IX, 1023.
 movement in rhizomes, Rec. VI, 487.
 of canned goods, analyzing, Rec. IX, 420.
 the atmosphere, discovery, Rec. VIII, 755,
 870.

- Gaslight, incandescent, effect on plant growth, **Rec. XII**, 47.
- Gassy—
and stringy curd, **Rec. XII**, 389.
tainted curds, **Rec. XI**, 296.
curd, **Rec. XII**, 388.
curd and cheese, **Rec. XII**, 984.
- Gasteromycetes—
cytological notes, **Rec. XII**, 1015.
development of fruiting organs, **Rec. VII**, 94.
of Maine, **Rec. VIII**, 671.
studies, **Rec. IX**, 357.
- Gastric—
digestion products, analyses, **Rec. X**, 281.
fermentation, bacteriology, **Rec. VII**, 95.
fever in cattle, **Rec. VII**, 712.
juice, analysis, **Rec. VII**, 17; **IX**, 982.
- Gastritis—
caused by fungus-infested cornstalks, **Rec. XI**, 592.
epizootic, parasitic, in fowls, **Rec. XII**, 294.
hemorrhagica in dogs, notes, **Rec. XII**, 1094.
parasitic, in calves, **Rec. XI**, 995; **XII**, 684.
- Gastro-enteritis—
in cattle, **Rec. X**, 597.
poultry, notes, **Rec. XII**, 894.
parasitic, **Rec. IX**, 389.
- Gastroides casea*, notes, **Rec. V**, 992.
- Gastro-intestinal catarrh of animals, **Rec. X**, 693.
- Gastrololium* sp., notes, **Rec. VI**, 335.
- Gastropacha*—
americana, notes, **Rec. II**, 64.
pini, notes, **Rec. VIII**, 711, 911.
quercifolia, affecting fruits, **Rec. XI**, 1057.
quercus, remedies, **Rec. XI**, 371.
- Gastrophilus*—
epilepsalis, n. sp., as cause of epilepsy, **Rec. XII**, 598.
cqui. (See HORSE BOT-FLY.)
hemorrhoidalis, notes, **Rec. VII**, 877; **XI**, 765.
nasalis, notes, **Rec. VII**, 877; **VIII**, 418; **XII**, 294.
pecorum, notes, **Rec. VII**, 877.
- Gaunts of cattle, notes, **Rec. IV**, 263.
- Gaur, notes, **Rec. IX**, 1030.
- Gaura parviflora*, notes, **Rec. V**, 306; **VI**, 732.
- Gaura, small flowered, notes, **Rec. V**, 306.
- Gayal, notes, **Rec. IX**, 1030.
- Gayophytum eriospermum*, notes, **Rec. VI**, 114.
- Geel-dykkop disease, treatment, **Rec. XI**, 593.
- Geese—
breed tests, **Rec. VIII**, 622.
breeding, **Rec. V**, 655; **X**, 992; **XI**, 673.
breeds, **Rec. XI**, 972.
check list of animal parasites, **Rec. IX**, 392.
crossing, **Rec. IX**, 874, 979; **X**, 990.
for profit, **Rec. IX**, 899.
growth of different breeds, **Rec. X**, 991.
loss of weight in dressing, **Rec. X**, 99.
manure, analyses, **Rec. VI**, 202; **VII**, 294.
pasturing, **Rec. IX**, 980.
septicemia, **Rec. X**, 497.
spirillum disease, **Rec. XI**, 589.
toxicology of strychnin, **Rec. XII**, 392.
weight of eggs from different breeds, **Rec. X**, 990.
- Geisenheim, Germany, Experiment Station, report, **Rec. III**, 259.
- Gelatin—
analyses, **Rec. VII**, 336.
analysis, use of formaldehyde, **Rec. X**, 716.
bacterial liquefaction as affected by sugar, **Rec. IX**, 1030.
detection in cream, **Rec. IX**, 808.
determination, **Rec. VII**, 648.
determination in gums and food materials, **Rec. X**, 821.
for preparation of specimens, **Rec. VIII**, 381.
liquefaction, **Rec. VII**, 462, 659.
preparations, notes, **Rec. VI**, 18.
properties, **Rec. XI**, 706.
saline digestion, **Rec. VII**, 462.
- Gelatinoid substances, determination, **Rec. IX**, 520.
- Gelechia—
cercallela. (See ANGOUMOIS GRAIN MOTH.)
intermediella, notes, **Rec. III**, 55.
piscipellis—
notes, **Rec. IX**, 670; **X**, 1069.
on tobacco, **Rec. IX**, 464.
remedies, **Rec. IX**, 464.
pseudacciella, notes, **Rec. V**, 884.
solanella, notes, **Rec. XI**, 472.
sp., notes, **Rec. VIII**, 504, 911; **XII**, 69.
- Gelsemium sempervirens*—
alkaloids, **Rec. V**, 252.
internal pbloëm, **Rec. XI**, 818.
notes, **Rec. X**, 516.
- Gembloux, Belgium—
Agronomic Institute at, experiments, **Rec. V**, 141.
Experiment Station at, **Rec. V**, 550.
instruction in agriculture, **Rec. XI**, 498.
report, **Rec. VII**, 341, 397; **VIII**, 443, 512.
- Generator for hydrogen sulphid, **Rec. VI**, 504; **XI**, 214.
- Generic descriptions, insufficiency, **Rec. VI**, 195.
- Genista—
scoparia, notes, **Rec. IX**, 41.
tinctoria, affected by *Macrobasis unicolor*, **Rec. XI**, 762.
- Genital apparatus of female orthopters, **Rec. VII**, 882.
- Gentianose—
decomposition by soluble ferments, **Rec. X**, 123.
occurrence in roots of gentian, **Rec. XII**, 716.
- Geocoris bullata*, notes, **Rec. II**, 734; **III**, 784; **VI**, 150.
- Geoglossæ, monograph, **Rec. IX**, 421.
- Geographic Society, National, **Rec. XI**, 429.
- Geographical—
Congress, Seventh International, **Rec. XI**, 819.
distribution of medicinal plants, **Rec. VIII**, 291.
- Geological—
history of the Chautauqua grape belt, **Rec. VIII**, 111; **IX**, 932.
- survey—
of Iowa, **Rec. XII**, 732.
Japan, agronomical section, **Rec. II**, 311; **V**, 361.

- Geology—
 and agriculture, Rec. IV, 248.
 bibliographic journal, Rec. XII, 502.
 in relation to agriculture, Rec. V, 344.
 of Hérault, Rec. XII, 648.
 Louisiana, Rec. IV, 244; V, 282; VIII, 382; XII, 221.
 Maryland, Rec. XII, 1098.
 Michigan, Rec. XII, 695.
 soils, Rec. I, 26.
 southeastern South Dakota, Rec. XII, 897.
 the Laramie plains, Rec. III, 52.
 Washington, Rec. IX, 737.
 Wyoming, Rec. XII, 1019.
 Wyoming experiment farms, Rec. V, 567.
- Geometrid, 14-flapped, notes, Rec. VI, 313.
- Geometridæ, effect of mild winter on first flight, Rec. XI, 658.
- Geometrina, new genera and species of North America, Rec. X, 372.
- Geomyidæ in Idaho, Rec. III, 184.
- Geomys*—
arenarius, notes, Rec. VI, 787; VII, 20.
breviceps, notes, Rec. VII, 20.
breviceps attenuatus, notes, Rec. VI, 787.
breviceps sagittalis, notes, Rec. VI, 787.
bursarius, notes, Rec. VII, 20.
lutescens, notes, Rec. VII, 20.
personatus, notes, Rec. VII, 20.
personatus fallax, notes, Rec. VI, 787.
 sp., notes, Rec. II, 258.
texensis, notes, Rec. VI, 787.
tuza, notes, Rec. VII, 20.
tuza mobilensis, notes, Rec. VI, 787.
- Georgia, improvement of road system of, Rec. V, 1007.
- Geotropie—
 curving of nodes, Rec. VI, 786.
 movements of plants, Rec. X, 321.
- Geotropism—
 and heliotropism, correlation, Rec. VIII, 380.
 of lower organisms, Rec. V, 434.
 studies, Rec. VII, 19, 94, 371.
- Geranium*—
carolinianum, notes, Rec. III, 598, 599.
dissectum, notes, Rec. III, 599.
- Geranium*—
 disease, Rec. X, 648.
 leaf spot, notes, Rec. XII, 253.
 mildew, notes, Rec. IV, 51.
 wild, notes, Rec. XII, 827.
- Geraniums*—
 classification, Rec. VIII, 409.
 culture, Rec. IX, 756.
 fertilizer experiments, Rec. XI, 453.
 varieties, Rec. VII, 586; X, 253; XI, 644.
- Germ feed—
 analyses, Rec. VI, 153, 163; IX, 1024.
 Chicago, analyses, Rec. VII, 336.
 for cows, Rec. V, 73.
- Germ meal, analyses, Rec. II, 565; III, 357; IV, 174, 733; VI, 1008; IX, 873.
- Germ oil meal, analyses, Rec. XII, 877.
- German Agricultural Experiment Stations, Association, convention, Rec. II, 522; III, 208, 499; IV, 520, 979; V, 929; VI, 9, 486; VII, 12; VIII, 447, 462; X, 817; XI, 505.
- German Agricultural Society, Rec. III, 932; V, 547, 663; VII, 757; VIII, 737.
- German Apothecaries, Association, convention, Rec. V, 356.
- German Foresters, meeting, Rec. IX, 843; X, 856.
- German Meteorological Society, meeting, Rec. X, 325.
- German Naturalists and Physicians, Association, convention, Rec. III, 136; IV, 108; V, 350, 356; VI, 486; VII, 364; VIII, 537; X, 192.
- German—
 aims and tendencies, Rec. IX, 103, 207.
 and Russian rye, Rec. VII, 32.
 clover. (See CLOVER, CRIMSON.)
 common school with a garden, Rec. XI, 799.
 millet. (See MILLET, GERMAN.)
 moss—
 analysis, Rec. V, 35.
 as litter, Rec. V, 35.
- Germany—
 agricultural and botanical studies in, Rec. VII, 925.
 practical science in, Rec. IX, 531.
 seed control in, Rec. IV, 982; VI, 10.
 traveling agricultural schools in, Rec. IX, 899.
 Wine Growers' Congress in, Rec. XI, 698.
- Germinal selection as a source of variation, Rec. VII, 926.
- Germination— (See also the various crops.)
 apparatus, Rec. II, 601; III, 211; VII, 273, 588, 689, 779; VIII, 58, 498, 795; XI, 56.
 increase in mineral matter during, Rec. XI, 1056.
 of frozen seeds, Rec. II, 3, 375.
 hard seeds as affected by sulphuric acid, Rec. X, 54.
 macrospores of *Marsilia vestita*, Rec. VI, 487.
 oil-bearing seed, Rec. VII, 218, 407; XI, 55.
 oily seed, Rec. VI, 431; VII, 510; XI, 55.
 old and fresh seed, Rec. X, 967.
 old seed as affected by ferments, Rec. XI, 460.
 seeds, Rec. VII, 277, 509; VIII, 29; IX, 453, 454, 1055; X, 967.
 of seeds as affected by—
 age, Rec. V, 347, 1030; VI, 427, 638; VII, 777, 871; XI, 157.
 alkali, Rec. XI, 459, 1052.
 alkaloids, Rec. VI, 903.
 anesthetics, Rec. XI, 1056.
 arsenic, Rec. VIII, 232.
 bacteria, Rec. VIII, 566.
 boracic acid, Rec. III, 579.
 calcium hydrate, Rec. XII, 759.
 carbon bisulphid, Rec. VIII, 498.
 carbonic acid, Rec. V, 257.
 cell content, Rec. IX, 737.
 chemicals, Bul. 2, I, 105; Rec. VI, 904; VIII, 467; X, 1026.
 copper sulphate, Rec. II, 638; IV, 15; VIII, 497; XI, 361.
 depth of planting, Rec. I, 283; VI, 822; VII, 395; X, 146.
 electricity, Rec. III, 518; IV, 315; VIII, 989; IX, 53; XI, 355, 462; XII, 825.
 enzymes, Rec. IX, 844; XI, 354.
 ether, Rec. X, 1048.
 ferments, Rec. XI, 460.
 fertilizers, Rec. VIII, 55, 233; X, 645; XII, 347, 1030.
 fluorids, Rec. III, 502.

Germination—Continued.

- of seeds as affected by—continued.
 - formic aldehyde, Rec. VII, 37; IX, 955; X, 320.
 - fungicides, Rec. V, 882; VI, 301, 439.
 - germination bed, Rec. XI, 460.
 - hot water, Rec. II, 637; VI, 904.
 - humus acids, Rec. X, 645.
 - hydrocyanic-acid gas, Rec. XII, 959.
 - lead acetate, Rec. V, 882.
 - light and chemical reagents, Rec. VII, 372; IX, 54, 954; XII, 1049.
 - liquid hydrogen, Rec. X, 1053.
 - moisture, Rec. V, 129; VI, 639; XI, 1056; XII, 910.
 - nitrates, Rec. V, 882; VII, 36; IX, 227; X, 849.
 - potassium sulphid, Rec. V, 304.
 - quality, Rec. VI, 419.
 - size of fruits, Rec. IX, 757.
 - size of seeds, Rec. XI, 159, 353.
 - sodium salts, Rec. V, 882.
 - sunlight, Rec. XII, 1049.
 - temperature, Rec. IV, 875; VI, 422, 640, 641; VII, 407; IX, 954; XI, 54, 156, 856; XII, 563, 910.
 - water, Rec. X, 259, 760.
 - water content, Rec. IV, 694.
 - X rays, Rec. X, 358.

of seeds—

- change of reserve materials, Rec. V, 257, 728; VI, 873.
- chemical processes in, Rec. XI, 55.
- decomposition of albuminoids during, Rec. VII, 839; VIII, 290.
- decomposition of protein during, Rec. IX, 226; X, 928.
- dissolution of cell membranes during, Rec. VI, 301; VII, 18.
- in burnt earth, Rec. IV, 876.
- sawdust, Rec. VI, 223.
- localization of oils, Rec. IV, 613.
- media, Rec. X, 554.
- notes, Rec. XI, 219.
- power of, Rec. IV, 550.
- production of heat, Rec. X, 358.
- reduction of nitrates in, Rec. IX, 227.
- requisite conditions, Rec. XI, 1055.
- rôle of philothion and laccase in, Rec. VII, 747.
- rôle of oxygen in, Rec. XII, 348.
- within the fruit, Rec. XI, 355.

of Spermaphytes, Rec. IX, 526.

of spores—

- as affected by ether, Rec. X, 1048.
- of black rot as affected by chemicals, Rec. VIII, 994.
- Cerebella paspali*, Rec. V, 937.
- of Swedish seeds, Rec. VIII, 58.
- the pollen grain, Rec. VI, 115.
- tree seeds, Rec. V, 61; VII, 509; VIII, 410.
- tests, Bul. 2, II, 57; Rec. I, 22, 25, 102, 271, 283, 295; II, 28, 62, 128, 317, 322, 325, 492, 601, 632, 650, 668; III, 143, 217, 356, 395, 461; IV, 334, 766; V, 122, 129, 333, 628, 1030, 1037; VI, 428, 429, 550, 639; VII, 136, 406, 407, 871; VIII, 233; IX, 955; XI, 856, 857; XII, 758.

Germination—Continued.

transformation—

- of alkaloids during, Rec. II, 456.
- fats during, Rec. IX, 625.
- organic substances during, Rec. XII, 720.

Germinator—

description, Bul. 2, II, 57.

of seed—

- analyses, Rec. II, 52, 666.
- test, Rec. I, 283.

Gerrhonotus scincicauda palmeri, n. sp., Rec. V, 90.

Gestation—

- in cows, Rec. XI, 81, 599.
- cows, effect on mineral matter of milk, Rec. XII, 884.
- mare, prolonged, Rec. IX, 593.

Ghent, Belgium, Experiment Station at, Rec. V, 551.

Ghizeh, Egypt, School of Agriculture, Rec. X, 202.

Giant root borer, notes, Rec. III, 765; IV, 839.

Giardius vitis, notes, Rec. VIII, 613.*Gibberella saubinetii*, notes, Rec. XI, 161.

Gid of sheep, notes, Rec. III, 152.

Gidgea acacia—

- analyses, Rec. IX, 844.
- ash analysis, Rec. X, 20.

Giessen, Germany, physical and chemical laboratory of the University of, Rec. XI, 619.

Gilia squarrosa, notes, Rec. III, 598; IV, 47; VII, 407.

Gilliflowers, notes, Rec. X, 440.

Ginger—

- analyses, Rec. XI, 769; XII, 79.
- culture, Rec. VII, 867; XI, 250, 744.
- culture in Jamaica, Rec. VI, 423; X, 546.
- examination, Rec. V, 258.
- mineral matter in, Rec. VI, 331.
- notes, Rec. VIII, 719.

Ginkgo biloba—

- characteristics of sexes, Rec. XI, 220.
- notes, Rec. VIII, 231.

Ginkgo—

- fecundation, Rec. IX, 421; X, 825.
- notes, Rec. II, 143; IV, 655; V, 54; VIII, 314.
- nut, Rec. VIII, 231.
- tree, notes, Rec. VI, 222; VIII, 314.

Ginseng—

- American, Rec. V, 128; X, 47; XII, 1044.
- analyses, Rec. X, 958.
- culture, Rec. VI, 216, 294, 637, 886; XI, 547.
- culture—

in Kentucky, Rec. X, 958.

- Pennsylvania, Rec. IX, 1053; X, 440.
- notes, Rec. XI, 240.
- production, statistics, Rec. III, 134.
- roots, analyses, Rec. VI, 274.

Gizzard, analyses, Rec. IV, 59.

Glacial—

- action in Indiana, Rec. XII, 732.
- lobe in Illinois, Rec. XII, 924.

Gladioli—

- bacterial diseases, Rec. V, 1019.
- hybrid, Rec. XII, 954.
- notes, Rec. V, 873; XII, 152, 649.
- varieties, Rec. VIII, 888; XI, 644.

Gladiolus—

botany and culture, Rec. VII, 688.

culture and varieties, Rec. IX, 247.

diseases—

notes, Rec. IX, 657.

treatment, Rec. XI, 752.

improvement, Rec. X, 153.

Glanders—

agglutination phenomena, Rec. IX, 391.

and farcy—

nature and effect, Rec. III, 521.

notes, Rec. VI, 472.

bacilli—

analyses, Rec. XI, 996.

classification, Rec. XI, 895.

hyphomycetous nature, Rec. XII, 793.

morphology, Rec. XII, 692.

structure, Rec. XII, 1091.

chronic, in man, Rec. XII, 491.

communicability, Rec. XII, 800.

control—

in Minnesota, Rec. XI, 1092.

Russia, Rec. XI, 895.

on the steppes, Rec. XI, 895.

cultures, Rec. V, 78.

curability, Rec. XII, 685.

diagnosis, Rec. XI, 985, 1089, 1092.

diagnosis—

by silver preparation of Credé, Rec. XI, 495.

Strauss method, Rec. XII, 95.

governmental regulation, Rec. IX, 496.

illustrated lecture, Rec. V, 1041.

in Belgium, Rec. IX, 195.

Holland, Rec. XI, 495.

horses and mules, Rec. VII, 252; VIII, 428.

Illinois, Rec. XII, 290.

man, mallein for, Rec. VI, 334.

Massachusetts, Rec. XI, 1087.

Pennsylvania, Rec. XII, 684.

Russia, Rec. XI, 895.

Texas, Rec. III, 729.

inoculation—

experiments, Rec. V, 608.

in camels, Rec. XI, 290.

mallein—

for diagnosing, Rec. IV, 620; V, 78; VI, 80, 471, 666, 932; VII, 252; VIII, 85, 525; IX, 192, 389, 391; X, 893; XI, 896, 993; XII, 95.

tests, Rec. XI, 285, 594, 889, 896, 993; XII, 95, 488, 491.

treatment, Rec. XII, 292, 885, 893.

natural recovery of horses, Rec. XI, 895.

nature and treatment, Rec. III, 398, 537, 685.

notes, Rec. II, 318; IV, 75; VI, 245; VIII, 525; IX, 496; X, 296; XI, 190, 285, 393, 793, 794, 995; XII, 488, 685, 791.

prevention, Rec. IX, 192; X, 893.

pulmonary, pathological anatomy, Rec. V, 259.

recurrence, Rec. XI, 1092; XII, 491.

sanitary—

law, Rec. XII, 95.

regulations, Rec. XI, 895.

serum diagnosis, Rec. XII, 488.

studies, Rec. IX, 496; XII, 92.

symptoms and treatment, Rec. X, 596.

Glanders—Continued.

transmission—

to man, Rec. XI, 288.

through conjunctiva, Rec. XI, 697.

treatment, Rec. VII, 252; IX, 391; XI, 889.

tubercles, structure, Rec. XII, 1091.

tuberculin for diagnosing, Rec. VII, 893; VIII, 332.

Glass—

action of magnesia mixture, Rec. VII, 17.

cocks, improvement, Rec. VII, 18.

for chemical apparatus, composition, Rec. IV, 221.

protectors, propagation of grafts of woody plants under, Rec. V, 1017.

Glasshouses—

construction and heating, Rec. VI, 727.

for the tropics, Rec. VI, 221.

substitute for glass in roofs, Rec. IV, 828.

Glauber's salts—

in food of cows, Rec. V, 918, 971.

on udder and milk of cows, Rec. V, 918.

Glaucium corniculatum, fumarin in, Rec. V, 252.

Gleditschia triacanthos—

composition of albumin of seeds, Rec. XII, 419.

culture in the West, Rec. VI, 821.

notes, Rec. III, 522; IV, 654; VII, 134; XII, 153.

thorns of, analyses, Rec. XI, 1008.

Gleichemas, culture, Rec. IX, 141.

Glen Cove starch feed, analyses, Rec. I, 15.

Glenea, new species, Rec. IX, 470.

Gliadin—

in oats, Rec. III, 11.

of wheat, Rec. IV, 934.

Gliocladium, structure and development, Rec. VII, 371.

Globules, fat, rapidity of movement in cream raising, Rec. V, 1054.

Globulin—

of cowpea, analysis, Rec. IX, 518.

sunflower seed, analysis, Rec. IX, 517.

solubility as affected by acid, Rec. IX, 515.

Globulins—

of Brazil nut, Rec. IV, 934

castor bean, Rec. IV, 934.

hemp seed, Rec. IV, 934.

oats, Rec. IV, 934.

squash seed, Rec. IV, 934.

wheat, Rec. IV, 934.

Glaeosporium—

ampelinum, notes, Rec. II, 32.

ampelophagum, notes, Rec. VI, 559; XI, 59, 260.

apocryptum on Norway maples, Rec. IX, 56.

cactorum, notes, Rec. XII, 573.

catalpæ, notes, Rec. III, 810.

cingulatum, notes, Rec. IV, 836.

clematidis, notes, Rec. IX, 659.

decolorans, notes, Rec. III, 810.

elasticæ, notes, Rec. X, 266.

fragariæ, notes, Rec. VI, 823.

fructigenum—

nature and treatment, Rec. III, 846, 878.

notes, Rec. IV, 354, 401, 657, 837; V, 880, 1076; VI, 558; VII, 38, 769, 874.

treatment, Rec. III, 878.

juglandis, notes, Rec. X, 649; XI, 552.

Glæosporium—Continued.*lagenarium*, notes, Rec. V, 788.*læticolor*, treatment, Rec. X, 562.*lindemuthianum*—

notes, Rec. X, 155.

treatment, Rec. IV, 55.

malicorticis, notes, Rec. XII, 58, 262.*manoti*, notes, Rec. V, 1100.*melongenæ*, notes, Rec. III, 307; IV, 51.*myrtilli* on *Vaccinium myrtillus*, Rec. VIII, 800.*necator*—

nature and treatment, Rec. IV, 659.

notes, Rec. II, 246, 482; III, 313.

nervisequum—

affecting sycamores, Rec. XI, 759.

notes, Rec. I, 169; III, 810; X, 260, 649; XI, 552; XII, 255.

olivarium, notes, Rec. XI, 949.*phomoides*, notes, Rec. X, 445.*piperitum*, notes, Rec. III, 307.*ribis*, notes, Rec. I, 283; XI, 167; XII, 573.*roseæ*, notes, Rec. V, 400.*salicis* affecting willows, Rec. XI, 1061.*sorauerianum*, notes, Rec. VII, 513.

sp. affecting red clover, Rec. XI, 59.

sp., notes, Rec. V, 192; VI, 58, 233; XI, 861.

sp. on orchids, Rec. IV, 54.

sp. on violets, Rec. IV, 54.

spp., studies, Rec. IV, 399.

thumeni, notes, Rec. V, 1100.*venetum*—

nature and treatment, Rec. III, 847.

notes, Rec. II, 246; III, 411; V, 60; VI, 559;

VII, 404, 694; VIII, 999.

versicolor—

nature and treatment, Rec. IV, 659.

notes, Rec. II, 32; III, 860.

violæ, notes, Rec. III, 307; X, 449.*Glæosporium*, notes, Rec. V, 401.*Gloriosas*, culture, Rec. IX, 451.*Glossary* of fodder terms, Rec. VII, 708.*Glossina morsitans*, notes, Rec. XII, 792.*Gloxinias*—affected by *Anguillula*, Rec. XI, 1061.

artificial fertilization, Rec. XII, 613.

diseases, Rec. IV, 87.

Glucosazone—

for determination of sugars, Rec. VII, 91.

from sumach and valones, Rec. VII, 365.

Glucose—

absorption by roots, Rec. IX, 724.

acetone, Rec. VII, 739.

action of alkalies on, Rec. VI, 376.

as affected by—

calcium hydroxid, Rec. VII, 741.

neutral salts, Rec. X, 313.

neutral substances, Rec. IX, 1023.

bran, analyses, Rec. XII, 877.

by-products, analyses, Rec. XI, 1076.

clearing by acetate of lead, Rec. VI, 844.

commercial, determination in presence of cane sugar, Rec. VI, 183, 867.

constitution of, Rec. V, 817.

consumption by rabbits, Rec. XII, 781.

content of sugar refuse, Rec. VII, 530.

Glucose—Continued.

determination, Rec. VI, 183, 504, 867, 868; VII, 72, 91, 185, 739; VIII, 198; X, 96, 117; XI, 22.

effect of lime and baryta, Rec. VI, 344.

feed—

analyses, Rec. IV, 174; VI, 331.

preparation, Rec. IV, 174.

fermentation by *Oidium lactis*, Rec. V, 919.

for improvement of wines, Rec. V, 441.

formation in the body, Rec. III, 928; V, 259.

in germinating seed of *Ricinus*, Rec. V, 528.

leather, determination, Rec. IV, 448.

maltose, Rec. VII, 20.

sugar juice, estimation, Rec. VI, 273.

juices, clarification, Rec. VI, 190.

manufacture, statistics, Rec. X, 898.

meal, analysis, Rec. V, 410.

molecular forms, Rec. VII, 365.

new, gravimetric method, Rec. VI, 504.

preparation of citric acid from, Rec. V, 344.

refuse, analyses, Rec. V, 66; VI, 331.

semicarbid, Rec. VII, 740.

sirup—

acidity, Rec. VII, 91.

ash content, Rec. VII, 91.

systematic analysis, Rec. XII, 214.

value in arsenical insecticides, Rec. XI, 560.

Glucoses, commercial, analysis, Rec. X, 96.*Glucosid*—in *Monotropa hypopitys*, Rec. VIII, 29.

new, Rec. XI, 706.

new, in *Erysimum*, Rec. XII, 912.

of millet, Rec. XI, 214.

Glucosids—

and glucoses, constitution, Rec. V, 817; VII, 365.

decomposition by fungi, Rec. XI, 322.

determination in urine, Rec. VIII, 562.

in *Spiræa*, Rec. XI, 715.*Glue* factory refuse, analyses, Rec. II, 154; III, 162.*Glue*—

for scale insects, Rec. III, 54.

mixture—

for pear scab, Rec. IV, 500.

potato rot, Rec. V, 307.

oil, etc., preparation from animal products, Rec. VII, 293.

Glugera varians, notes, Rec. IX, 369.*Glutamin*—

and asparagin, formation by germinating plants, Rec. IX, 526.

distribution in plants, Rec. VIII, 669; X, 116.

formation in plants, Rec. VII, 93.

Gluten—

absorption of water, Rec. VIII, 514; IX, 480.

analyses, Rec. I, 255; II, 154, 589.

composition, Rec. VII, 254.

constitution, Rec. X, 79.

content of wheat flour, Rec. VII, 518.

content and baking properties of flour, Rec. V, 257.

cream, analyses, Rec. IV, 935; V, 312.

determination in flour, Rec. VIII, 155; XII, 1007.

effect of heat on digestibility, Rec. VI, 242.

Gluten—Continued.

feed—

analyses, Rec. I, 15; IV, 475; V, 66, 194, 195, 794; VI, 153, 163, 331, 842, 931; VII, 155, 195, 336, 614; VIII, 331, 426, 427, 719; IX, 682; X, 276, 474, 678; XI, 279, 777, 971; XII, 70, 169, 281, 282, 378, 472, 877.

Argo, analyses, Rec. VIII, 719.

Buffalo, analyses, Rec. V, 312; IX, 786; XI, 279, 777, 971.

Chicago, analyses, Rec. IX, 786.

description, Rec. XI, 971.

Diamond, analyses, Rec. XI, 971; XII, 279.

digestibility, Rec. VI, 317; VII, 317.

Peoria, digestibility, Rec. XI, 566.

Pope, digestibility, Rec. IX, 373.

flour—

analyses, Rec. VIII, 719.

Dick, analyses, Rec. V, 194.

fresh, effect on old flour, Rec. X, 884.

in flours, Rec. XII, 377, 1076.

oats, Rec. III, 11.

wheat, Rec. V, 870; VII, 518.

in wheat—

analyses, Rec. IX, 777.

constituents, Rec. XII, 476.

distribution, Rec. X, 779.

early formation, Rec. IV, 614.

meal—

analyses, Bul. 2, I, 83; Rec. I, 15, 221; II, 232, 579, 581, 589, 666; III, 177, 220, 288, 296, 616, 878; IV, 64, 68, 174, 176, 242, 733; V, 66, 194, 195; VI, 153, 163, 331, 444, 663, 842, 931, 1008; VII, 155, 336, 614; VIII, 331, 426, 427, 768, 1004; IX, 809, 866; X, 474, 678; XI, 279, 381, 777; XII, 70, 169, 282, 378, 472, 587, 877.

Atlas. (See ATLAS MEAL.)

Buffalo, for cows, Rec. V, 316, 1065.

Chicago, analyses, Rec. V, 312; VII, 336; XI, 279, 882, 971.

cost and valuation, Bul. 2, I, 53.

Cream, analyses, Rec. IV, 935; V, 312; VI, 153; XI, 279.

Cream, for cows, Rec. V, 73, 316.

digestibility, Rec. IV, 570; VII, 317.

effect on butter, Rec. IX, 1083.

effect on iodine number of butter, Rec. V, 974.

for cows, Rec. II, 592; III, 219, 287; IV, 64, 65; VIII, 428, 429, 1020; XI, 885, 888.

pigs, Bul. 2, I, 78, 82; Rec. II, 577, 647; III, 156, 478; IV, 68; V, 75.

steers, Rec. III, 162.

Golden, analyses, Rec. VIII, 1004.

investigation of, Rec. IV, 389.

Iowa, analyses, Rec. V, 992.

King, analyses, Rec. V, 992; VIII, 1004; IX, 866; XI, 279, 971.

Peoria, analyses, Rec. V, 992.

Pope, digestibility, Rec. IX, 373.

preparation, Rec. IV, 174.

v. corn meal and bran for cows, Rec. III, 86; VIII, 1020.

cotton-seed meal for cows, Rec. III, 86; IX, 881.

Gluten—Continued.

meal—continued.

v. linseed meal for beef cattle, Rec. VIII, 77.

maize feed for cows, Rec. VII, 972.

skim milk for cows, Rec. III, 86.

properties, Rec. XI, 706.

protein, fuel value, Rec. XII, 1072.

refuse, analyses, Rec. XI, 971.

Glutenin of wheat, Rec. IV, 935.

Glyceria—

aquatica—

notes, Rec. II, 321; VII, 116.

poisonous to cattle, Rec. XI, 796.

canadensis, notes, Rec. VII, 384.

distans, notes, Rec. II, 321.

fruitans, notes, Rec. VIII, 412.

nervata, notes, Rec. II, 321.

pauciflora, notes, Rec. II, 321; IV, 951.

spectabilis—

analyses, Rec. IV, 769, 770.

notes, Rec. IV, 771.

spp., notes, Rec. V, 912.

Glycerids—

distribution of enzymes, Rec. XI, 125.

in the volatile acids of fat of milk, Rec. VII, 618.

liquid and solid, in butter fat, Rec. V, 954.

of butter fat, Rec. XI, 615.

Glycerin-alkali method for determining crude fiber, Rec. III, 910.

Glycerin—

and alcohol in wines, relation between, Rec. V, 824.

determination, Rec. V, 252.

for milk fever, Rec. XI, 696.

preservation of virus, Rec. IV, 695.

in acid solution, oxidation, Rec. III, 924.

wax, determination, Rec. X, 315.

wine, determination, Rec. IV, 389, 616; VI, 613; VII, 363; IX, 196, 419.

wines and other fermented liquors, Rec. III, 924.

nutrition of green plants by, Rec. VI, 873.

Glycerol—

in fermented liquors, Rec. XII, 1007.

wine, Rec. VI, 374; VII, 363.

Glycerose, preparation, Rec. VII, 365.

Glycine hispida. (See SOY BEAN.)

Glycobius speciosus, notes, Rec. VIII, 318.

Glycocoll in sugar cane, Rec. IX, 720.

Glycogen—

determination, Rec. XI, 22, 419.

determination in horseflesh, Rec. XII, 107.

formation, Rec. XII, 877.

formation—

after consumption of sugars, Rec. III, 928.

as affected by different substances, Rec. XII, 981.

from leucin, Rec. XI, 576.

protein, Rec. XII, 587.

in body after consuming xylose, Rec. V, 1031; VI, 75.

without glycogen, Rec. XI, 1076.

in fungi—

and yeasts, Rec. VIII, 105.

chemistry, Rec. VII, 651.

Glycogen—Continued.

in hay and in muscles, determination, Rec. VII, 90.

mushrooms and yeasts, Rec. VII, 557.

transformation from fat, Rec. XI, 184.

Glycolic acid in sugar cane, Rec. X, 919.

Glycosid of cacao seed, Rec. V, 648.

Glycyrrhiza lepidota, notes, Rec. III, 598; IV, 669.
Glyoxylic acid, effect on carbohydrates, Rec. VII, 557.

Glyptia simplicipes, notes, Rec. IV, 417.

Gmelina leichhardtii, notes, Rec. VII, 776.

Gnaphalium—

obtusifolium, analyses, Rec. III, 629.

purpureum, notes, Rec. III, 599.

Gnathodius—

abdominalis, notes, Rec. VII, 143.

spp., notes, Rec. VII, 595.

Gnathostoma hispidum, notes, Rec. XI, 697.

Gnats—

notes, Bul. 2, II, 92; Rec. XI, 263.

treatise, Rec. XII, 467.

Gnephopsis eriocarpa, injury to horses, Rec. X, 725.

Gnetaceæ, anatomy, Rec. VI, 279.

Gnetum, studies, Rec. XI, 121.

Gnomia sabalicola, notes, Rec. X, 725.

Goat—

louse, notes, Rec. II, 79.

manure, analyses, Rec. VIII, 153.

moth, notes, Rec. VI, 917; VII, 700.

scab, studies, Rec. IX, 95.

Goats—

and cows, comparative digestive power, Rec. IV, 738.

sheep, comparative digestive power, Rec. IV, 738.

Angora, Rec. V, 608; XII, 1077.

Angora, of California, Rec. II, 518; VIII, 332.

as milk-producing animals, Rec. XI, 587.

bots in head, Rec. XI, 191.

corn meal for, Rec. V, 1081.

crimson clover hay for, Rec. V, 1081.

digestion experiments, Rec. IV, 736; V, 668, 1081; X, 348.

disease resembling tuberculosis, Rec. XI, 797.

distribution of galactase in milk, Rec. XI, 580.

economic value, Rec. XII, 478.

epizootic pneumonia, notes, Rec. XI, 895.

feeding experiments, Rec. III, 262; V, 1081.

foot-and-mouth disease, Rec. X, 694; XI, 695.

gangrenous mammitis, Rec. XI, 191.

growth as affected by composition of milk, Rec. XI, 576.

inoculated, immunity from cholera by milk of, Rec. V, 439, 963.

in the United States, Rec. XI, 483.

lung-worm disease, Rec. XI, 191.

parasites, Rec. X, 570.

peanut-vine hay for, Rec. V, 1081.

pleuro-pneumonia, Rec. VIII, 928.

sorghum—

bagasse, for, Rec. V, 1081.

fodder for, Rec. V, 1081.

soy-bean hay for, Rec. V, 1081.

studies, Rec. V, 440, 655.

tuberculosis in, Rec. V, 439; XI, 193, 794.

Goats' milk. (See MILK.)

Goats' rue—

analyses, Rec. VI, 404.

culture experiments, Rec. VI, 531.

Goes—

pulverulentus, notes, Rec. X, 168.

tigrina, notes, Rec. XI, 168.

Gold—

analyses, Rec. VIII, 563.

exports, Rec. V, 798.

ores, analyses, Bul. 2, I, 22.

Gold of pleasure, notes, Rec. II, 651.

Golden bugs, Rec. V, 403.

Golden rod—

analyses, Rec. III, 629.

as a food for bees, Rec. IV, 417.

notes, Rec. III, 52; IV, 699; XI, 354.

poisoning by, Rec. VII, 618.

species, Rec. IV, 829.

"Golden sirup," adulteration, Rec. XII, 477.

Golden-tailed moth, Rec. VIII, 911.

Goldsmith beetle, notes, Rec. IV, 354, 839.

Gomphinae, North American, studies, Rec. IX, 372, 1069.

Gomphocarpus tomentosus, notes, Rec. III, 598.

Gomphus gracilinellus, notes, Bul. 2, II, 93.

Gongylonema, revision of genus, Rec. VI, 933.

Goniocotes, notes, Rec. XI, 263.

Goniocota pallida, notes, Rec. III, 327; IV, 417.

Goniodes, notes, Rec. XI, 263.

Gonioscope, description, Rec. IV, 871.

Good Roads Association of Ontario, convention, Rec. VII, 432.

Good Roads Convention—

of Minnesota, proceedings, Rec. V, 1006.

Texas, proceedings, Rec. VII, 257.

Virginia, proceedings, Rec. VI, 942.

Good Roads, National League for, convention, Rec. V, 328.

Goodeniaceæ, fertilization, Rec. VII, 94.

Gooseberries—

adapted to Utah, Rec. V, 53.

analyses, Rec. VII, 582; XI, 1046.

analyses of juices, Rec. VI, 110.

attacked by *Hendersonia grossulariæ*, n. sp., Rec. X, 155.

Cape, notes, Rec. III, 618.

culture, Rec. IX, 650.

culture experiments, Rec. XI, 735.

European v. American varieties, Rec. IX, 138.

fertilizer experiments, Rec. XI, 735, 1039; XII, 344, 648.

fungicides and insecticides for, Rec. V, 685.

grafting—

in open air, Rec. V, 1018.

on currants, Rec. XI, 850.

hybrid, culture experiments, Rec. X, 47.

insects affecting, Bul. 2, II, 119.

irrigation, Rec. XI, 735, 1039; XII, 344.

notes, Rec. X, 757; XI, 251.

Otaheite, notes, Rec. VI, 636.

Pearl, Rec. VIII, 890.

preservatives for exhibition purposes, Rec. XI, 649.

prickly, notes, Rec. III, 522.

pruning, propagating, etc., Rec. VIII, 791.

seedling varieties, Rec. IX, 841.

smooth, notes, Rec. III, 522.

Gooseberries—Continued.

sugar content of fruit as affected by spraying with copper salts, *Rec. XII*, 519.
 varieties, *Bul. 2, I*, 183, 190; *Bul. 2, II*, 88, 91; *Rec. I*, 84, 229, 287; *II*, 6, 50, 295, 322, 328, 354, 372, 392, 598, 653, 668, 740, 742; *III*, 85, 314, 356, 360, 361, 402, 701, 788; *IV*, 166, 436, 556, 650, 728, 917; *V*, 53, 190, 300, 584, 681, 786, 793, 870, 871, 877, 984, 985, 1076; *VI*, 52, 55, 56, 142, 296, 423, 424, 727; *VII*, 128, 129, 214; *VIII*, 134, 889; *IX*, 49, 138, 139, 244, 245, 353; *X*, 49, 253, 255, 436, 848; *XI*, 150, 153, 251, 252, 452, 547, 644, 650, 844; *XII*, 237, 645.

Gooseberry—

blight, treatment, *Rec. IX*, 457.
 borer, black, notes, *Rec. XII*, 364.
 cluster cup, *Rec. V*, 193.
 disease, notes, *Rec. V*, 498; *XII*, 262.
 diseases in the Hudson Valley, *Rec. XII*, 154.
 fritfly, remedies, *Rec. IX*, 673.
 fruit fly—
 remedies, *Rec. VIII*, 806; *IX*, 138.
 notes, *Rec. IV*, 58; *X*, 1066.
 fruit worm, notes, *Rec. II*, 70; *IX*, 858; *X*, 869; *XII*, 68, 869.
 fungus, *Rec. X*, 561.
 leaf blight, notes, *Rec. VI*, 557.
 leaf spot—
 fungicides for, *Rec. VIII*, 995.
 notes, *Rec. VIII*, 995; *IX*, 762; *XI*, 861.
 remedies, *Rec. IX*, 138.

mildew—

in Ireland, *Rec. XII*, 573.
 notes, *Rec. III*, 197; *V*, 193, 498, 629; *VI*, 559; *IX*, 762; *XI*, 861.
 treatment, *Bul. 2, I*, 145; *Rec. I*, 169; *II*, 599; *III*, 403; *IV*, 436; *IX*, 138, 1061, 1062; *X*, 661, 860; *XI*, 945.

mite—

in Germany, *Rec. VII*, 881.
 red, notes, *Rec. VI*, 742.

pectin, *Rec. XI*, 906.plant louse, notes, *Rec. VII*, 880.rust, notes, *Rec. V*, 193; *VII*, 141.rusts, alternation of hosts, *Rec. V*, 653.sawfly, notes, *Rec. I*, 22; *V*, 740, 985.spanworm, notes, *Rec. IV*, 58, 203; *V*, 206.wine, notes, *Rec. VI*, 637.

Goosefoot—

notes, *Rec. III*, 308; *V*, 497; *VI*, 732.
 root system, *Rec. IV*, 46.
 white, notes, *Rec. V*, 811.

Goose grass—

analyses, *Rec. II*, 486.
 notes, *Rec. II*, 486.
 yard, analyses, *Rec. V*, 64, 65.

Gopher—

Baird's, notes, *Rec. VII*, 20.
 gray, notes, *Rec. V*, 161.

Gophers—

and moles—
 automatic gun for, *Rec. VI*, 65.
 notes, *Rec. V*, 161; *VI*, 389, 787.
 food, *Rec. IV*, 171.
 injury to sugar beets, *Rec. V*, 293.
 notes, *Rec. IV*, 802; *XII*, 898.

Gophers—Continued.

pocket—

fleas, *Rec. IX*, 254.
 injuring red clover, *Rec. VII*, 26.
 monographic revision, *Rec. VI*, 787.
 notes, *Rec. II*, 258; *V*, 161; *VI*, 389; *VII*, 20; *VIII*, 68.
 repression, *Rec. II*, 71; *V*, 161, 293, 386; *XI*, 429, 659.

Gopherus polyphemus, notes, *Rec. VI*, 440.*Gordius*, sp., notes, *Bul. 2, II*, 93.

Gorse—

for sheep, *Rec. XI*, 773.
 seed, hardness of seed coat, *Rec. IV*, 872.

Gortyna—

flavago, notes, *Rec. XII*, 862.

nitela—

description and treatment, *Rec. III*, 889.
 early accounts of, *Rec. IV*, 83.
 notes, *Rec. II*, 81, 654; *III*, 54; *VI*, 312, 314, 316; *VII*, 144; *IX*, 962; *X*, 871; *XI*, 762.
 on cotton, *Rec. IV*, 373.

Goshawk, notes, *Rec. VI*, 694.*Gossyparia ulmi*. (See ELM BARK LOUSE.)*Gossypium herbaceum*, notes, *Rec. VI*, 207.Gossypol in cotton seed, *Rec. XI*, 510.Gothenburg, Sweden, Seed Control Station, report, *Rec. IX*, 454, 1055; *XI*, 55, 354, 460, 1055; *XII*, 252.

Göttingen, Germany—

Agricultural Institute, *Rec. V*, 657; *VII*, 294.
 Experiment Station at, *Rec. III*, 1, 210, 259.

Gouda cheese. (See CHEESE.)

Goumi—

culture, *Rec. VIII*, 312.
 notes, *Rec. IX*, 559; *X*, 547.
 varieties, *Rec. VI*, 142; *VII*, 405; *VIII*, 407.

Gourd, wild, notes, *Rec. IV*, 47.

Gourds—

culture, *Rec. IX*, 357.
 culture experiments, *Rec. VI*, 807.
 varieties and culture, *Rec. VI*, 548.

Gracillaria robiniella, notes, *Rec. V*, 884.

Grackle—

bronzed, as an enemy of the locust, *Bul. 2, II*, 93.
 food habits, *Rec. XII*, 828.

Gradients, vertical, of temperature, *Rec. XI*, 222.

Graft—

Cadillac, *Rec. XI*, 548.

effect on—

flavor of fruit, *Rec. X*, 552.
 species, *Rec. XII*, 449.

from antiquity to the present time, *Rec. VIII*, 205.

hybrids, *Rec. VII*, 750.

Lafleur or English herbaceous, *Rec. XII*, 449.
 physiology, *Rec. VIII*, 792.

Graftage, mixed, *Rec. IX*, 945, 950.

Grafting—

apples, *Rec. VI*, 992; *IX*, 750; *X*, 151, 397; *XI*, 548.

apples on—

crab apple stocks, *Rec. III*, 865; *XI*, 848, 930.
 honey locusts, *Rec. XI*, 850.
 peaches, *Rec. XI*, 850.

Grafting—Continued.

- cherries, Rec. X, 355.
- chestnuts, Rec. VII, 405; XI, 742.
- chrysanthemums, Rec. VII, 688.
- cleft, fruit trees in fall, Rec. XI, 451.
- conditions of success, Rec. XII, 947.
- conifers, Rec. VII, 869.
- Cruciferae, Rec. III, 926.
- directions for, Rec. VII, 772.
- double, for pears, Rec. VII, 585.
- effect on plant nutrition, Rec. XI, 344.
- evergreens, Rec. VII, 505.
- fruit trees, Rec. V, 496; VII, 772; X, 1044.
- grape—
 - cuttings, Rec. XII, 898.
 - vines, Rec. V, 1099; VI, 724; VIII, 314, 701; IX, 246; X, 355, 758; XI, 52, 548, 850; XII, 151, 241, 346, 852, 1042.
 - vines, subterranean, Rec. V, 731, 820.
- grapes—
 - apparatus for, Rec. VI, 821.
 - physiology, Rec. VI, 724.
- herbaceous—
 - of balsam apple, Rec. II, 508.
 - plants, Rec. VII, 505.
 - transpiration in, Rec. IV, 870.
- in creation of varieties, Rec. XI, 250.
- machine, new, Rec. IX, 841.
- modifications induced, Rec. XI, 152.
- monocotyledons, Rec. XI, 910.
- movements of sap in, Rec. VI, 617.
- muskmelons, Rec. XI, 153.
- new methods, Rec. IX, 51, 450.
- olives, Rec. VI, 820; VII, 505.
- oranges, Rec. VII, 505.
- peaches—
 - on cherry, Rec. V, 1089.
 - currants, Rec. XI, 850.
- pears, Rec. IX, 136.
- pecans, Rec. VIII, 890.
- plants of different families, Rec. XII, 642.
- plums, Rec. III, 589; X, 355.
- potatoes, Rec. X, 432; XII, 942.
- reciprocal effect of scion and stalk, (*See* SCION.)
- roses, Rec. V, 1018; VII, 586, 688; X, 855.
- schools in Haute-Savoie, Rec. VII, 165.
- stocks—
 - for peaches, Rec. X, 352.
 - plums, Rec. X, 351.
- sugar beets, Rec. XI, 334.
- tea roses, Rec. X, 855.
- top—
 - notes, Rec. VI, 992.
 - v. root, effect on longevity, Rec. IX, 948.
- transmission of acquired characters, Rec. XI, 343.
- variations produced, Rec. XII, 54.
- whole—
 - and piece root, Rec. IV, 166.
 - v. piece root for apples, Rec. XI, 548.
 - with fruit-bud twigs, Rec. XII, 648.

Grafts—

- insects and fungus enemies, Rec. VI, 147.
- morphology and physiology, Rec. V, 818, 923, 1089; VIII, 792.
- of woody plants, propagation, Rec. V, 1017.
- young, protection, Rec. V, 1100.

Graham bread. (*See* BREAD, GRAHAM.)

Graham flour, analyses, Rec. VIII, 1003.

Grain—

- and bread, prices, 1881 to 1895, Rec. VII, 813.
- embryo, relation, Rec. VII, 188.
- hay mixed for horses, Rec. IV, 71.
- meal for pigs, Rec. V, 632.
- aphis—
 - and its enemies, Rec. I, 219.
 - injury to wheat, Rec. XII, 868.
 - natural enemies, Rec. XI, 266.
 - notes, Bul. 2, II, 118; Rec. I, 41, 91, 219, 291; II, 5, 81, 164, 281, 318, 358, 365, 495; III, 46, 175, 176, 282, 309, 792, 859; IV, 204; VI, 65, 235, 836; VIII, 906; IX, 458, 855; X, 164, 460, 866; XI, 264, 266, 765, 862, 955; XII, 467.
 - remedies, Rec. XI, 175, 959.
- aphodius, notes, Bul. 2, I, 91.
- artificial drying, Rec. VI, 296.
- bacteria on, Rec. VII, 658.
- beetle—
 - brown, notes, Rec. VII, 43.
 - lesser, notes, Rec. IV, 253.
 - notes, Rec. II, 71, 495; V, 410, 654; VI, 438; VII, 43.
 - red, notes, Rec. III, 702; IV, 253; VII, 43; VIII, 610.
 - saw-toothed, notes, Rec. II, 71, 495; III, 702; IV, 253; V, 410; VI, 438; VII, 43, 515; VIII, 241, 610; IX, 65, 368, 853; X, 273, 1067; XI, 952.
 - square-necked, Rec. VII, 515.
- beetles, bisulphid of carbon for, Rec. III, 452.
- blue color, Rec. IV, 984.
- breeding, Rec. IX, 1048; XII, 441.
- breeding—
 - accessories, Rec. XII, 340.
 - in Russia, Rec. IX, 833.
- changes in storage, Rec. V, 347.
- color as affected by season, Rec. VIII, 307.
- condition, Rec. III, 813.
- cost of growing, Rec. V, 652.
- cracked v. ground, for chickens, Rec. X, 580.
- crops—
 - as affected by sugar-beet culture, Rec. XII, 943.
 - of France, Rec. XII, 698.
 - the world, Rec. XI, 698; XII, 1098.
 - parasites, Rec. IX, 370.
- cultural value of different varieties, Rec. VII, 580.
- culture, Rec. IV, 985; X, 148.
- culture—
 - improvement, Rec. VII, 682.
 - in Sweden, Rec. V, 820.
- damaged, analyses, Rec. XI, 138.
- dangers in feeding to stock, Rec. XII, 478.
- drilling—
 - advantages, Rec. XI, 145.
 - v. broadcasting, Rec. VII, 672.
- distribution, Rec. IX, 834.
- drying, Rec. VIII, 492.
- drying kiln, Rec. VII, 72.
- drying rack, Rec. IX, 135.
- eating birds, Rec. X, 521.
- eating brachytarsus, Rec. VIII, 616; IX, 68.
- elevator, experimental, Rec. X, 697.

Grain—Continued.

- elevators and associations for selling, Rec. VIII, 267.
- experiments at Svalöf, comparative, Rec. V, 820.
- exports in Russia, removal of restriction, Rec. IV, 282.
- feeds, commercial, feeding value, Rec. V, 502.
- fertilizer—
 - experiments, Rec. IV, 693; XII, 739.
 - requirements, Rec. X, 750.
- fields injured by cold, treatment, Rec. VII, 121.
- fodders, Canadian, analyses, Rec. V, 631.
- for lambs, Rec. II, 436.
- lambs before weaning, Rec. V, 502; VI, 661; VIII, 332, 720; X, 774, 775.
- frosted, germination, Rec. I, 19.
- fungi, new, Rec. VI, 909.
- germination as affected by immersion in water, Rec. X, 259.
- ground, for chicks, Rec. X, 698.
- ground *v.* unground—
 - for chicks and capons, Rec. IX, 1076.
 - hens, Rec. VII, 423; VIII, 820.
 - pigs, Rec. II, 427; III, 130; IV, 512; V, 632; IX, 971; X, 776.
- growing in Canada, Rec. VII, 121.
- handling and marketing, Rec. III, 807.
- harvesters, tests, Rec. V, 350; VI, 252.
- hulls, analyses, Rec. XI, 971; XII, 378.
- insects—
 - affecting, Rec. VIII, 148; IX, 470.
 - in sugar, Rec. V, 901.
- intensive cultivation, Rec. VI, 216.
- lodging, Rec. X, 349, 947; XI, 44, 145; XII, 1037.
- market of Edinburgh, Rec. IX, 199, 397.
- methods of analysis, Rec. V, 127, 727.
- mixed—
 - growing, Rec. II, 649.
 - v.* molasses feed for cows, Rec. IX, 984.
 - sugar-beet residue and molasses feed for cows, Rec. IX, 984.
- mixtures, tests, Rec. VII, 671; VIII, 975; X, 240.
- moth—
 - Angoumois. (*See* ANGOUMOIS GRAIN MOTH.)
 - in America, Rec. IX, 854.
- Nowacki law of formation of stalk, Rec. V, 539.
- originating varieties, Rec. IX, 830.
- predisposition to rust, Rec. VI, 560.
- preparation of seed beds for, Rec. XI, 642.
- prevention of injuries, Rec. VI, 1001.
- production—
 - as affected by weight of seed, Rec. VII, 680.
 - cost, in Santa Fe and Cordova, Rec. VIII, 492.
- ration for cows at pasture, Rec. I, 280; II, 369, 504; III, 613; IV, 842.
- rations, relative feeding value, Rec. II, 592.
- rusts. (*See* RUSTS, and different kinds of cereals.)

Grain—Continued.

- seed—
 - destruction of insects in, Rec. IX, 453.
 - digestibility and nutritive value, Rec. V, 654.
 - germination tests, Rec. IV, 436.
 - weed seeds in, Rec. IX, 845.
- smuts. (*See* SMUTS OF CEREALS, and BARLEY, CORN, OATS, RYE, WHEAT, etc.)
- sorting, Rec. X, 245.
- sphenophorous, description and treatment, Rec. III, 889.
- sport varieties, Rec. X, 750.
- sprouted—
 - feeding, Rec. IX, 981.
 - for seed, Rec. IX, 553.
 - use in distilleries, Rec. IX, 553.
- statistics of Russia, Rec. VIII, 1034.
- stored, insects affecting, Rec. V, 410; VI, 740, 1002; VII, 43, 515; VIII, 610; IX, 368; XI, 1066.
- storing in different countries, Rec. X, 349.
- study on ripening, Rec. V, 782, 1098.
- susceptibility to rust, Rec. VII, 225.
- tester, experiments with, Rec. III, 510.
- toxoptera, notes, Rec. III, 811.
- trade in America, India, and Russia, Rec. XII, 298.
- varieties—
 - for breeding purposes, Rec. XII, 850.
 - pure cultures, Rec. V, 818.
- vitality, Rec. IX, 830.
- v.* blood molasses for pigs, Rec. XI, 69.
- mangel-wurzels for pigs, Rec. V, 429.
- no grain for young lambs, Rec. IV, 571.
- oil cake for sheep, Rec. X, 985.
- roots for lambs, Rec. VI, 660.
- v.* silage—
 - for cows, Rec. IX, 881.
 - pigs, Rec. IV, 738.
- weevil— (*See also* CALANDRA GRANARIA.)
 - loss from, Rec. IV, 84.
 - notes, Rec. II, 5; IV, 417; V, 410; VI, 433, 442; VII, 515; VIII, 610; IX, 66, 854; XI, 955.
 - parasites, Rec. IX, 855.
 - remedies, Rec. IV, 84; VIII, 241; XI, 366.
- winter—
 - condition, Rec. II, 673; III, 903; IV, 850, 957; V, 1088; VI, 87; VII, 73, 164; XI, 397.
 - fertilizing, Rec. VIII, 117, 596.
- winterkilling, Rec. IX, 749.
- with and without grass for pigs, Rec. VII, 983.
- Grains— (*See also* different cereals.)
 - and field flowers, Rec. IX, 643.
 - roots, small, field experiments, Rec. VIII, 885.
 - cold storage, Rec. III, 928.
 - determination of starch in, Rec. X, 17, 20, 314.
 - effect of iron sulphate in soils on yield of, Rec. III, 750.
 - fall, winter protection, Rec. XII, 941.
 - fat compounds, Rec. V, 338.
 - seeding experiments, Rec. X, 843; XII, 537.
 - starch and sugar in, Rec. V, 476.
 - stooling, Rec. X, 947; XII, 941.

Grains—Continued.

summer—

fertilizer experiments, Rec. V, 924.

varieties, Rec. VIII, 781.

tillering, Rec. XI, 599.

variety test, Rec. V, 548.

winter, as affected by low temperature, Rec. X, 635.

Grains of Paradise—

analyses, Rec. V, 916.

for adulterating pepper, Rec. V, 915.

notes, Rec. V, 655.

Grallina—*australis*, notes, Rec. X, 93.*picata*, notes, Rec. X, 93.

Gramma—

black, Rec. VIII, 306; X, 147, 343.

blue, Rec. VIII, 306; X, 147, 343; XII, 332.

grass—

analyses, Rec. VIII, 331.

causing disease in horses, Rec. XI, 1090.

culture experiments, Rec. I, 121.

notes, Rec. V, 679.

grasses, analyses, Rec. VI, 403.

side-oats, notes, Rec. X, 147, 343; XII, 332.

six weeks, analyses, Rec. VIII, 306, 331.

tall—

analyses, Rec. VIII, 331.

notes, Rec. VIII, 306.

woolly jointed, notes, Rec. VIII, 306.

Gramineæ—

botanical key, Rec. IV, 250.

descriptions and uses, Rec. VIII, 470.

development of seed coat and pericarp, Rec. XI, 220.

morphology, Rec. IX, 526.

nitrogenous fertilizers for nitrogen, Rec. V, 852.

North American, anatomy, Rec. VII, 277, 925; VIII, 380.

notes, Rec. V, 903.

structure of fruit, Rec. X, 725.

use of awns, Rec. X, 718.

"Gran Cultura," in Porto Rico, Rec. XI, 819.

Grana cheese, manufacture, Rec. X, 493.

Granary weevil. (See GRAIN WEEVIL.)

Grand Cayman phosphates for corn and potatoes, Rec. II, 484, 485.

Grandpa's beard grass, notes, Rec. X, 343.

Granite dust, analyses, Rec. VIII, 41.

"Grano" gluten, analyses, Rec. III, 878.

Grape— (See also VITICULTURE.)

anthracnose—

fungicides for, Rec. II, 714; III, 10; IX, 961.
notes, Rec. I, 170, 319; II, 32, 483, 609; III, 10, 172, 313, 403, 470, 847; IV, 659, 838; V, 61, 347, 498, 629; VI, 62, 559, 734; VII, 694, 769; XI, 248, 260, 261; XII, 657.*Spheceloma ampelinum* as a cause of, Rec. IX, 961; XI, 861.

treatment, Rec. II, 714; III, 10, 847; IV, 551, 659, 694; VI, 647, 738; VII, 876; VIII, 801, 899; IX, 961; X, 156; XI, 59, 861.

aspidiotus, resin wash for, Rec. VI, 564.

bacterial—

disease, Rec. IX, 361, 1057; V, 1018, 1099; X, 59; XI, 59.

disease in Var, Rec. VI, 311.

Grape—Continued.

bacteriosis, Rec. VI, 231.

beetle, spotted, Rec. VI, 989.

belt, Chautauqua, Rec. VIII, 111; IX, 332.

berry moth—

notes, Rec. II, 654; IV, 839; VI, 316; VIII, 803; XI, 248; XII, 665.

remedies, Rec. XI, 367.

bitter rot, notes, Rec. I, 170; III, 313, 403; VII, 769; XI, 260.

black rot—

as related to temperature and growth of vine, Rec. X, 456.

coal smoke for, Rec. VIII, 318.

commission, conclusions, Rec. IX, 1060.

copper salts for, Rec. II, 267; VII, 312; VIII, 141.

dissemination, Rec. IX, 361.

evolution, Rec. IX, 569.

fungi, Rec. XII, 965.

fungicides for, Rec. II, 322, 328, 633, 713; III, 10, 864; XI, 357.

fungicides, relative efficiency, Rec. XI, 862.

fungus parasite, Rec. XI, 357.

fungus, spring forms, Rec. VIII, 995.

germination as affected by chemicals, Rec. VIII, 994.

in France, Rec. VII, 311; X, 60.

Jura, Rec. XII, 573.

notes, Rec. I, 319; II, 173, 318, 322, 328, 482, 609; III, 172, 313, 403, 470; IV, 658, 659, 828, 838; V, 498, 792; VI, 62, 233, 558, 734; VII, 694, 769, 965; IX, 761, 765, 959; X, 59, 456; XI, 167, 248, 260, 469; XII, 61, 657.
occurrence on leaves as related to that on fruit, Rec. XI, 758.

prevention, Rec. XI, 166.

recent investigations, Rec. XI, 758.

reproduction, Rec. XI, 358.

resistant vines, Rec. IX, 148.

rôle of *Phoma* spp. in, Rec. XI, 1061.

scientific name, Rec. X, 59.

treatment, Bul. 2, II, 135; Rec. I, 168, 170, 196, 294; II, 32, 173, 322, 455, 586, 633, 713; III, 781, 847, 878, 889; IV, 167, 500, 828; V, 257, 1100; VI, 62, 724, 830; VII, 39, 312, 592, 695, 788, 876; VIII, 141, 236, 239, 318, 412, 500, 800, 801, 996; IX, 363, 458, 569, 959, 1060, 1062; XI, 262, 358, 362, 758, 759; XII, 360.

winter form, Rec. VII, 964.

Botrytis disease, notes, Rec. XI, 260.

brown rot—

notes, Rec. I, 170; III, 470; IV, 659, 729; VI, 62, 734; XII, 61, 657.

treatment, Rec. II, 32, 173; VI, 724.

brown spot, notes, Rec. XII, 464.

brunissure—

caused by puncture of insects, Rec. VI, 560.
in Italy, Rec. V, 926.

nature and causes, Rec. XI, 59, 362, 466; XII, 260.

notes, Rec. V, 423; VI, 229, 647, 910, 1000; VII, 221.

Plasmodia sp. as cause of, Rec. VI, 230.

treatment, Rec. XII, 763.

cane borer, notes, Rec. V, 498; VIII, 803, 909; X, 766; XI, 366.

Grape—Continued.

cane-gall maker, notes, Rec. X, 1076; XII, 662.

California disease—

in Avellino, Rec. XII, 464, 657.

Sorrento, Rec. XI, 59.

notes, Rec. XII, 1053.

chlorosis—

notes, Rec. XII, 463.

treatment, Rec. VIII, 63, 141, 500, 898; IX, 458, 660.

chyttridiose—

external characteristics, Rec. VI, 642.

treatment, Rec. VI, 738.

Cochylis, remedies, Rec. XII, 662.

coulure, notes, Rec. XII, 262.

culture—

espalier, Rec. VI, 221; VII, 505.

handbook, Rec. VII, 772.

curculio, notes, Rec. III, 175; V, 498.

cuttings—

ash analyses, Rec. X, 232.

browning, Rec. VIII, 139.

fertilizers for, Rec. IV, 828.

grafting, Rec. XII, 898.

packing for shipping in warm climates, Rec. XI, 549.

destroying beetle, Rec. IX, 262.

disease—

caused by *Botrytis cinerea*, Rec. V, 351; VI, 147; IX, 148.

caused by *Helicobasidium purpureum*, Rec. VII, 410.

in Sorrento, Rec. X, 59.

the Caucasus, Rec. XII, 1056.

Vaucluse, Rec. V, 1099.

new, Rec. VI, 560; VII, 964.

prevention, Rec. X, 60.

diseases, Rec. IX, 160; X, 860.

diseases—

and injuries as affected by fertilizers, Rec. X, 457.

as affected by fertilizers, Rec. IX, 1062; X, 59, 457.

classification, Rec. XI, 58.

fungicides for, Bul. 2, II, 135.

in Baden, Rec. X, 59.

Brazil, notes, Rec. XI, 59.

Chile, Rec. VII, 788.

Germany, Rec. X, 865.

Portugal, Rec. VII, 39, 311, 513.

the Hudson Valley, Rec. XII, 154.

notes, Rec. III, 470; V, 591, 824, 875; VII, 141; XII, 166, 961.

on the Pacific coast, Rec. VII, 409.

report, Rec. V, 824.

treatment, Bul. 2, II, 135; Rec. III, 688; IV, 500; VII, 788; XII, 464.

downy mildew—

affecting fruits, Rec. XI, 1057.

efficiency of fungicides, Rec. XI, 862.

notes, Rec. I, 170, 319; II, 32, 318, 606, 609; III, 172, 197, 313, 403, 847, 871; IV, 659, 729, 828, 838; V, 61, 399, 498, 629, 653, 878, 989;

VI, 62, 233, 436, 437, 558, 735; VII, 694, 769, 788, 965; VIII, 398; X, 155, 763; XI, 59, 260, 516, 763; XII, 464, 657, 966.

perithecia of, Rec. VI, 557.

Grape—Continued.

downy mildew—continued.

treatment, Bul. 2, I, 26; Rec. II, 32, 173, 599; IV, 828; V, 257; VI, 558, 735; VII, 441, 788; IX, 458, 660, 776, 1062; X, 364; XI, 256, 362, 469, 556, 759; XII, 464, 657.

foliage, effect of arsenites, Rec. II, 199, 216.

fumagine, treatment, Rec. XII, 61, 1056.

gall gnat, notes, Rec. XII, 272.

gray rot, notes, Rec. I, 170.

gummosis, Rec. VI, 147, 432, 437, 910; VII, 513, 965; VIII, 318; IX, 149; X, 224; XII, 1053.

gummosis, *Bacillus baccarini* as a cause of, Rec. X, 224.

injuries from freezing and malnutrition, Rec. XII, 464.

juice—

as affected by sake yeast, Rec. IX, 626.

preservation, Rec. IX, 895; X, 397, 896,

sterilization in wine making, Rec. XII, 195.

unfermented, preparation, Rec. XII, 898.

leaf blight—

notes, Rec. I, 319; III, 313, 403, 417; V, 498; VII, 769; XI, 248.

treatment, Rec. II, 32.

leaf diseases, Rec. IX, 660.

leaf diseases—

notes, Rec. XI, 861.

prevention, Rec. VIII, 608.

leaf sooty mold, Rec. XII, 61, 1056.

leaf spot, notes, Rec. I, 319; XII, 657.

leaves—

as a feeding stuff, Rec. VI, 468; VIII, 331; IX, 1078.

coloring matter in, Rec. V, 1027.

for giving aroma to wines, Rec. XII, 996.

scald of, caused by *Exobasidium vitis*, Rec. VI, 230.

sprayed, poisoning by, Rec. IV, 223.

lees and marc as fertilizers, Rec. XI, 138.

louse. (See PHYLLOXERA.)

"mal nero," notes, Rec. IX, 924; XII, 1053.

marc as a feeding stuff, Rec. XII, 781.

mildew—

fungicides for, Bul. 2, II, 135; Rec. IX, 961.

notes, Rec. II, 318; III, 161, 479; IV, 51; V, 629, 792, 821; VII, 311; XI, 59, 170, 260; XII, 463.

treatment, Bul. 2, II, 135; Rec. I, 83; II, 303, 409; IV, 436, 652; VI, 436, 831, 910; VII, 39, 695, 788, 876; VIII, 63, 141, 898, 996; IX, 363, 765, 961; X, 364, 365, 661; XI, 165, 167, 362, 947; XII, 62, 262, 360, 464, 573, 657, 858, 966, 1053.

mold, Rec. V, 351.

must—

as affected by sulphurous acid, Rec. VII, 463.

fermentation, Rec. VI, 969.

fermentation by *Saccharomyces ellipsoides*, Rec. VII, 20.

fermentation with pure cultures, Rec. IV, 517.

influence of pruning on composition, Rec. VI, 143.

Grape—Continued.

must—continued.

nitrogenous matter in, Rec. IV, 616.

unfermented, preservation, Rec. XII, 794.

new micromycete, Rec. XI, 261.

parasite, new, Rec. VII, 695; IX, 961.

parasitic diseases, Rec. XI, 949.

peptic disease, Rec. VI, 303.

Peronospora. (See GRAPE DOWNY MILDEW.)

phymatodes, notes, Rec. II, 730; III, 298.

plant, composition at different stages, Rec. IV, 217.

plume moth, notes, Rec. III, 298.

pollen, impotency of, Rec. IV, 876.

pourridie—

notes, Rec. V, 498.

propagation in sand, Rec. V, 529.

treatment, Rec. V, 1031, 1100; VI, 60, 838; X, 971.

powdery mildew—

development, Rec. VII, 467.

identity of American and European Rec. IV, 591.

in Burgundy, Rec. XII, 573.

notes, Rec. I, 170, 319; II, 318, 609; III, 313, 403, 781, 864, 871; IV, 838; V, 498, 989; VI, 62, 559, 560, 734; VII, 411, 769, 788, 965; XI, 260.

perithecia, Rec. IV, 591; VI, 305.

treatment, Rec. II, 32; III, 926; VII, 39, 410, 694, 788, 876; VIII, 411, 990, 995; X, 59, 156; XI, 759; XII, 62, 360, 573, 657, 965, 966.

prunings, fertilizing constituents, Rec. V, 391.

ripe rot—

notes, Rec. II, 749; IV, 551; VI, 734; VII, 769.

treatment, Rec. VIII, 995; IX, 961.

root grafts repellent to phylloxera, Rec. VI, 300.

root louse, notes, Rec. IX, 571.

root rot, notes, Rec. V, 498; VII, 769; XI, 59, 248, 260.

roots—

aerial, Rec. XI, 28.

as affected by phylloxera, Rec. IX, 575; XI, 262.

decay, Rec. VII, 772.

growth, Rec. X, 720.

Mycorrhiza on, Rec. VI, 969.

rot—

notes, Rec. III, 297.

treatment, Rec. II, 25, 409; X, 60, 762, 862, 971.

rust, notes, Rec. XII, 657.

scald, notes, Rec. XII, 464.

scale, notes, Rec. VII, 147; X, 768.

scale insects, Rec. VII, 147, 316.

scale insects, treatment, Rec. V, 983.

seed caterpillar, notes, Rec. VI, 316.

seeds—

differences in, Bul. 2, II, 88.

effect on formation of flesh, Rec. IV, 783.

normal number, Rec. XI, 935.

structural characters, Rec. V, 926, 1095.

value in determining species and hybrids, Rec. V, 926, 1095.

Grape—Continued.

sooty mold—

notes, Rec. XI, 260.

treatment, Rec. VIII, 500.

spot disease, notes, Rec. VI, 233.

stem borer, notes, Rec. XII, 664.

stocks—

choice, Rec. VIII, 496.

for calcareous soils, Rec. IX, 842.

grafting, Rec. X, 355.

rot, in Sorrento, Rec. XI, 59.

sugar—

acidity, Rec. VII, 91.

determination, Rec. IX, 808.

ash content, Rec. VII, 91.

thrip, notes, Rec. X, 165.

troubles of western New York, Rec. VIII, 318.

weevil, black, notes, Rec. VI, 442.

white rot—

notes, Rec. I, 170; III, 403; V, 235; VII, 769, 965; IX, 249, 960; XII, 360, 571.

perithecia, Rec. VI, 304.

treatment, Rec. VII, 411.

wine, substitutes, Rec. IX, 696.

wood as affected by copper, Rec. VII, 964; VIII, 53.

Grape-fruit. (See POMELOS.)

Graperies, borders for, Rec. III, 107.

Grapes— (See also VINEYARDS.)

American—

and phylloxera, Rec. V, 824.

culture, Rec. XI, 52; XII, 151.

in Europe, Rec. VII, 772.

France, Rec. VII, 505.

position of hybrids in classification, Rec. VI, 266.

study and improvement, Rec. XII, 446.

varieties for French vineyards, Rec. XII, 953.

varieties in Switzerland, Rec. XII, 648.

waxes of, Rec. VI, 615.

Amur, Rec. XI, 745.

analyses, Rec. II, 23, 582; III, 24; IV, 44, 652; V, 190, 391; X, 754.

and drupes, influence of seed on formation of flesh, Rec. IV, 783.

apoplexy, Rec. V, 235.

as affected by—

copper compounds, Rec. IV, 968.

Cuscuta monogyna, Rec. IX, 653; XI, 159.

electricity, Rec. III, 519.

Ezobasidium vitis, Rec. X, 59.

fertilizers, Rec. X, 59.

freeze of February 13, 1899, Rec. XII, 50.

fungi, Rec. VII, 140, 221, 231; VIII, 142.

gypsum, Rec. IV, 615; VI, 729; VII, 586; VIII, 701.

hot water, Rec. V, 593.

sulphur during flowering, Rec. VIII, 63.

unusual cold, Rec. XI, 1041.

as food for pigs, Rec. V, 353.

bagging, Rec. I, 4, 188; II, 8, 64; III, 171, 370, 789; XI, 349.

best climatic conditions, Bul. 2, II, 91.

blanching, notes, Rec. XI, 58.

blossoming season, Rec. XI, 249.

botany, Rec. X, 640.

Grapes—Continued.

bud—

and shoots as affected by cold, *Rec. V*, 1099.

development, *Rec. XI*, 858.

variation, *Rec. VIII*, 290.

budding, *Rec. VII*, 308, 309; *XII*, 852.

budding, improved method, *Rec. VIII*, 985.

Catawba, analyses, *Rec. IV*, 59.

cold storage, *Rec. V*, 909.

coloring, *Rec. XI*, 452.

coloring matter, *Rec. VI*, 615.

coloring matter, source and nature, *Rec. III*, 749, 923.

colors, *Rec. V*, 940.

copper in, *Rec. II*, 324; *III*, 690, 789.

copper poisoning, *Rec. X*, 562.

crop outlook, 1892, *Rec. IV*, 500.

cross fertilization, *Rec. VI*, 46, 729.

crossing, *Rec. X*, 355, 640.

culture, *Rec. I*, 5; *II*, 8; *IV*, 551; *V*, 586, 873; *VI*, 221, 547, 637, 902, 989; *VII*, 306; *IX*, 842; *X*, 440, 1043; *XI*, 253; *XII*, 648.

culture—

effect on alcohol content of wine, *Rec. XI*, 648.

experiments, *Bul. 2*, *II*, 135.

for raisins, *Rec. VIII*, 176.

in Astrakhan, *Rec. IX*, 139.

California, *Rec. XI*, 452.

California, cutworms on, *Rec. V*, 328.

France, as affected by light freezes, *Rec. X*, 31.

Georgia, *Rec. VII*, 767.

New York and Ohio, *Rec. XI*, 937.

pots, *Rec. IX*, 52.

Russia, *Rec. X*, 255; *XI*, 154.

the Caucasus, *Rec. X*, 355.

the South, *Rec. XII*, 346.

the United States, *Rec. II*, 537.

Uruguay, *Rec. IX*, 246.

on sandy soils, *Rec. XI*, 745.

decay, *Rec. V*, 401.

development as affected by environment, *Rec. XI*, 52.

disinfection of stock against phylloxera, *Rec. XI*, 959.

distance of planting, *Rec. VI*, 637; *XI*, 937.

dropping, causes, *Rec. XI*, 933.

early wild, notes, *Rec. III*, 521.

effect of—

seeds on formation of flesh, *Rec. IV*, 783.

stripping leaves, *Rec. III*, 656.

temperature on action of sulphur on, *Rec. X*, 156.

examination, *Rec. V*, 190.

fertilizer experiments, *Rec. III*, 24; *V*, 820, 925, 1094; *VI*, 50, 636, 638, 818; *VII*, 36, 772; *VIII*, 701; *XI*, 150, 545, 549, 650, 932; *XII*, 151, 344, 852, 953, 1042.

fertilizers—

for, *Rec. IV*, 615; *V*, 1095; *VII*, 163; *VIII*, 408; *IX*, 52.

v. barnyard manure, *Rec. XI*, 932.

fertilizing, *Rec. VI*, 424.

Grapes—Continued.

fertilizing ingredients removed from soil, *Rec. II*, 272.

forcing, *Rec. V*, 873, 878; *VII*, 217, 505, 772, 868, 960; *VIII*, 231, 601, 701, 792; *XI*, 745.

French, analyses, *Rec. VII*, 503.

from cuttings, *Rec. VIII*, 601.

girdled vines, quality, *Rec. III*, 24.

frost, notes, *Rec. III*, 521.

fruit development as affected by seed development, *Rec. XI*, 932.

fungi affecting, *Rec. VII*, 140, 221, 231; *VIII*, 142.

fungicides for, *Bul. 2*, *II*, 135; *Rec. II*, 408, 633, 712, 713; *III*, 23; *IV*, 500.

fungus diseases, *Rec. II*, 32, 206, 455, 609, 713; *X*, 971; *XI*, 362, 758; *XII*, 965.

germination as affected by temperature and moisture of soil, *Rec. VI*, 422.

grafted and ungrafted, manuring, *Rec. V*, 731.

grafting—

apparatus for, *Rec. VI*, 821.

by English or Lafleur method, *Rec. XII*, 852.

on peaches, *Rec. XI*, 850.

resistant varieties, *Rec. XII*, 151, 241, 346, 1042.

stocks for, *Rec. X*, 355.

subterranean, *Rec. V*, 731, 820.

vines, *Rec. V*, 1099; *VI*, 724; *VIII*, 314, 701; *IX*, 246; *X*, 758; *XI*, 52, 548.

greenhouse culture, *Rec. VIII*, 772.

green manuring, *Rec. VI*, 143; *VIII*, 231; *X*, 963; *XI*, 452; *XII*, 346.

growing nursery stock, *Rec. XII*, 151.

grown on alkali soils, winds from, *Rec. XII*, 995.

growth, *Rec. III*, 750.

history, *Rec. VIII*, 55.

hybrid, notes, *Rec. VI*, 300, 729; *X*, 351.

hybridizing, *Rec. IX*, 246, 842; *X*, 150.

hybrids, production, *Rec. X*, 355.

importation of Italian, *Rec. II*, 629.

improvement, *Rec. XII*, 247.

improvement by crossing, *Rec. VI*, 637.

injury by—

bees, *Rec. VIII*, 601, 911; *IX*, 352; *XI*, 60; *XII*, 1067.

sulphur in strong sunlight, *Rec. XII*, 768.

wind, *Rec. XI*, 59.

injuries in Germany, *Rec. X*, 763.

insecticides and fungicides, combined, *Rec. II*, 408.

insecticides for, *Rec. III*, 23; *IV*, 873.

insects affecting, *Rec. IV*, 852; *V*, 328, 530, 821, 822, 983; *VI*, 838; *VII*, 140, 231, 770, 792, 881; *VIII*, 142, 803, 1002; *IX*, 160, 465; *X*, 168, 373; *XII*, 770.

invertin in, *Rec. XII*, 716.

investigation, *Rec. III*, 928.

irrigation, *Rec. VII*, 430; *X*, 152, 854; *XI*, 449, 745; *XII*, 346.

kainit for, *Rec. XI*, 150.

latent and active life, *Rec. VIII*, 985.

Madeira, notes, *Rec. II*, 629.

Grapes—Continued.

- muriate *v.* sulphate of potash for, Rec. III, 24.
- myriapods in, Rec. V, 530.
- native—
 - fifty years' improvement, Rec. XI, 650.
 - study, Rec. VI, 55.
 - systematic position, Rec. VIII, 204.
- new stocks for calcareous soils, Rec. IX, 842.
- nitrate of soda for, Rec. XII, 852.
- notes, Rec. X, 547; XII, 945.
- of variegated colors, Rec. V, 540.
- on sandy soils, Rec. VIII, 55; IX, 745.
- sandy soils, fertilizers for, Rec. XI, 650.
- organic *v.* mineral nitrogen for, Rec. V, 1095.
- oxydase of, Rec. IX, 419.
- packing—
 - and shipping, Rec. V, 909; VII, 769; VIII, 496.
 - with peat, Rec. V, 909.
- parasitic diseases, Rec. XI, 949.
- Persian and Italian, in California, Rec. III, 595; VI, 722.
- phosphatic slag for, Rec. IX, 52.
- phyloxera-resistant varieties, Rec. XII, 151, 754, 775.
- planting, Rec. VII, 768.
- plaster for, Rec. IV, 615; VI, 729; VII, 586; VIII, 701.
- pollination, Rec. VII, 770; VIII, 601.
- port and sherry, Rec. II, 629.
- pot *v.* planted canes, Rec. VI, 729.
- potassium carbonate for, Rec. V, 1095.
- potassium chlorid for, Rec. V, 1095.
- potassium sulphate for, Rec. V, 1095.
- premature falling, Rec. VI, 300.
- preservation, Rec. VIII, 982; IX, 447.
- propagation, Rec. III, 107; VII, 768.
- protection against frosts, Rec. VI, 49, 559; VIII, 890; XI, 650.
- pruning, Rec. VI, 143, 221; VII, 308, 687; IX, 52, 447, 451, 521, 949; X, 355, 440.
- pruning and training, Rec. IV, 551; VI, 143, 221, 821; VII, 308, 687, 769; IX, 561; X, 355, 440; XII, 247.
- red, white wines from, Rec. IX, 1095; XII, 195.
- removal of copper stains from, Rec. II, 713.
- renovation of old vines, Rec. VII, 586.
- resistant stocks, Rec. VII, 309, 586, 868.
- resistant varieties, Rec. VIII, 408; XI, 452.
- ringing, Bul. 2, I, 93; Rec. II, 23; III, 24; XI, 49, 599; XII, 50.
- ripening, as affected by seed development, Rec. XI, 935.
- root knots on, Rec. IV, 563.
- roots, aerial of, Rec. XI, 28.
- rougeot on, Rec. VI, 233.
- seedless—
 - notes, Rec. XI, 320.
 - origin, Rec. XI, 934.
- selection for wine making, Rec. V, 190; VIII, 981, 982.
- self-fertility, Rec. IX, 52; X, 355; XII, 248, 453.
- self-pollination, Rec. VI, 46.
- self-sterile varieties, fertilization, Rec. XII, 240.
- self-sterility, Rec. X, 152; XI, 249.
- shanking, notes, Rec. XI, 58.

Grapes—Continued.

- shelling, Rec. VI, 732; XI, 58; XII, 657.
 - shelling, prevention, Rec. IX, 568.
 - sherry, notes, Rec. II, 629.
 - Sicilian, analyses, Rec. VI, 221; IX, 696.
 - soil treatment, Bul. 2, I, 67.
 - sprayed, copper in, Rec. IV, 55, 242.
 - spraying, Rec. VII, 141, 876; VIII, 240; IX, 49.
 - spraying experiments, Rec. IV, 828.
 - study of growth, Rec. IV, 217.
 - stunted growth, Rec. XII, 260, 360, 461.
 - subirrigation by brush ditches, Rec. XI, 452.
 - sucrose, presence in, Rec. XII, 716.
 - sugar content of fruit, as affected by spraying with copper salts, Rec. XII, 519.
 - sulphate of iron for, Rec. IX, 250.
 - sulphur for, Rec. VIII, 63, 141.
 - sulphuring, Rec. XI, 168.
 - summer notes, Rec. III, 521.
 - Thomas slag for, Rec. IX, 52.
 - thrips on, Rec. III, 107.
 - training, Bul. 2, I, 549; Rec. V, 874; VI, 221, 423, 821; VIII, 792, 890; IX, 139, 561; X, 963; XI, 52.
 - trellising, Rec. IV, 551; VI, 992; VII, 687, 769.
 - tuberculosis, Rec. X, 858.
 - utilization of fertilizing principles, Rec. VII, 36.
 - varieties, Bul. 2, I, 21, 23, 26, 67, 190, 215; Bul. 2, II, 87, 91; Rec. I, 84, 188, 213, 229, 319; II, 5, 6, 8, 295, 355, 392, 395, 411, 556, 566, 599, 629, 642, 653, 658, 659, 668; III, 82, 85, 282, 356, 361, 386, 403, 445, 580, 685, 701, 722, 723, 788, 865, 876; IV, 44, 166, 253, 352, 436, 551, 556, 652, 653, 728, 828, 918; V, 53, 190, 298, 302, 396, 496, 584, 585, 586, 587, 681, 870, 873, 877, 985; VI, 52, 55, 142, 424, 724, 901, 902, 988, 989; VII, 34, 129, 130, 214, 307, 405, 770; VIII, 133, 134, 407, 496, 601, 786, 889, 982, 985; IX, 49, 50, 51, 353, 559, 650, 841; X, 46, 48, 49, 254, 255, 436, 440, 1043; XI, 153, 248, 251, 252, 253, 349, 544, 644, 844, 929, 932, 1036; XII, 54, 237, 246, 344, 345, 648, 1044.
 - varieties—
 - adapted to Kansas, Rec. VI, 309.
 - adapted to Texas, Rec. VII, 309.
 - adapted to Utah, Rec. V, 53.
 - drought resistant, Rec. XII, 343.
 - for calcareous soils, Rec. XII, 246.
 - wines, Rec. II, 536; V, 190.
 - Italian, Rec. II, 629; VI, 722.
 - resistant to mildew, Rec. IX, 852.
 - Victor, Rec. VIII, 408.
 - watering, new method, Rec. XI, 50.
 - wild—
 - classification, Rec. II, 258.
 - notes, Rec. IV, 656.
 - yeast fungi, Rec. VII, 311.
 - yield as affected by—
 - precipitation and fertilizers, Rec. XII, 151.
 - spraying, Rec. IX, 49.
- Grapevine—
- beetle, notes, Bul. 2, II, 119; VIII, 711, 999; IX, 862.
 - borer, remedies, Rec. XI, 273.
 - caterpillar—
 - pyramidal, Rec. II, 654; IV, 839.
 - spotted, notes, Rec. III, 175.

- Grapevine—Continued.
 chafer, spotted. (*See PELIDNOTA PUNCTATA.*)
 colaspis, Rec. X, 61.
 disease, Rec. IV, 498.
 fidia— (*See also GRAPEVINE ROOT WORM.*)
 notes, Rec. VIII, 909.
 treatment, Rec. VIII, 803.
 flea-beetle—
 notes, Rec. II, 101; III, 175, 198; VI, 316;
 VIII, 803; X, 273, 1073; XI, 370.
 remedies, Rec. XI, 64.
 leaf beetle, remedies, Rec. VIII, 1003; IX, 262.
 leaf folder, notes, Bul. 2, I, 26; Rec. II, 318;
 III, 282; VIII, 803, 909; XI, 248; XII, 665.
 leaf hopper—
 fungus diseases, Rec. III, 10.
 notes, Rec. II, 318; III, 8, 55, 197, 230; VI,
 316; VIII, 611, 803, 999; XI, 248.
 parasites, Rec. III, 42.
 leaf hoppers, remedies, Bul. 2, I, 91; Rec. IX,
 151, 766.
 leaf roller—
 notes, Bul. 2, I, 177; III, 175; IV, 58.
 remedies, Rec. IX, 371.
 mesquite, notes, Rec. VIII, 306; X, 343.
 necrosis, Rec. X, 859.
 prunings, fertilizing ingredients, Rec. V, 391.
 Psychid caterpillar, Rec. XI, 1063.
 root worm, notes, Rec. VI, 563; VII, 697; X,
 63; XII, 974.
 sawfly, notes, Bul. 2, I, 177; III, 298; V, 593;
 XI, 952.
 sunstroke, Rec. VIII, 989.
 tubercle disease, Rec. VIII, 141.
 typhlocybrids of the Mesilla Valley, Rec. VII,
 518.
 Grapevines— (*See also VINEYARDS.*)
 as affected by lightning, Rec. X, 1058; XI, 52,
 122.
 copper in, Rec. IV, 872.
 diseases and enemies in Algeria, Rec. IX, 251.
 effect of copper solutions, Rec. IV, 872.
 heat requirements, Rec. IX, 139.
 injection of fungicide and fertilizer, Rec. X,
 758.
 injured by frost, treatment, Rec. IV, 872.
 land plaster for, Rec. VIII, 701.
 ornamental value, Rec. IX, 451.
 prevention of insect attacks, Rec. VII, 772.
 root disease, Rec. X, 156.
 root killing, Rec. I, 213.
 sulphate of iron for, Rec. VII, 964.
 sulphur for, Rec. XI, 168.
Grapphephorum wolfi, notes, Rec. II, 321.
Graphiola phoenicis, notes, Rec. XII, 655.
Graphisurus pusillus, notes, Rec. IX, 669.
 Graphite as a lubricant, Rec. IX, 197.
Grapholitha—
 interstinctana—
 notes, Rec. III, 222, 327, 784; IV, 730; V,
 101, 989; VI, 313, 649.
 parasites, Rec. IV, 731.
 prunivora, notes, Rec. XI, 863.
 schistaceana, notes, Rec. III, 278; VIII, 320;
 X, 570, 769.
Graphops—
 marcassitus, notes, Rec. X, 66.
 nebulosus, notes, Rec. II, 405.
Grapta butterfly, Rec. VIII, 146.
Grapta—
 comma, notes, Rec. IV, 838; VIII, 146.
 interrogationis, notes, Rec. I, 12; III, 318; V,
 101; IX, 966.
 progne, notes, Rec. I, 12.
 satyrus, notes, Rec. X, 164.
Graptodera—
 chalybea. (*See GRAPEVINE FLEA-BEETLE.*)
 foliacea, notes, Bul. 2, II, 11, 33; Rec. I, 11,
 120.
 sp., treatment, Rec. IV, 58.
 Grass—
 alkali, notes, Rec. III, 598.
 and clover seed—
 mixing, Rec. II, 602.
 mixtures, Rec. VII, 32.
 and jointworm flies, Rec. VIII, 148.
 comparison of phosphates on, Rec. X, 936.
 eating insects, notes, Rec. VI, 62.
 effect of drying on nutritive value, Bul. 2, II,
 126.
 feeding Jassidæ, Rec. VIII, 558; IX, 152; XI,
 766.
 for beef cattle, Rec. VIII, 77.
 pigs, Rec. V, 76.
 fresh fermentation, Rec. IX, 918.
 gardens—
 experimental, Rec. VII, 396.
 value, Rec. VIII, 781.
 Hungarian, utilization of nitrogen in differ-
 ent forms, Rec. XII, 528.
 lands—
 care, Rec. II, 602; VIII, 307.
 draining, Rec. III, 160.
 formation and care, Rec. VIII, 307; IX,
 335.
 improvement, Rec. IV, 39.
 management, Rec. V, 172.
 manuring, Rec. I, 183.
 top-dressing, Rec. XI, 145.
 yield of hay from, Rec. IV, 39.
 leaves, anatomy, Rec. VIII, 470.
 mildew, treatment, Rec. VIII, 307.
 mite, remedies, Rec. XI, 174.
 mixtures, Rec. III, 129, 836.
 mixtures—
 experiments, Rec. II, 594.
 for clover soils, Rec. VIII, 975.
 meadows, Rec. X, 43, 432.
 permanent meadows, Rec. XI, 632.
 formulas, Rec. I, 183; II, 602.
 notes, Rec. XII, 350, 911.
 tests, Rec. IV, 38; V, 171; VI, 138; XII, 740.
 needle, notes, Rec. IV, 699; VIII, 781; X, 147,
 343.
 pasture—
 analyses, Bul. 2, II, 125; Rec. III, 296, 455;
 VI, 1008.
 digestibility, Bul. 2, II, 126, 127; Rec. III,
 454, 455.
 digestibility of nitrogen-free extract, Rec.
 VI, 155.
 fertilizer experiments, Rec. XI, 339.
 notes, Rec. I, 254; VI, 532; X, 547; XI, 145.
 species, Rec. III, 41.
 study, Rec. VII, 925.
 yield and composition, Bul. 2, II, 124.

Grass—Continued.

- plats and turf, formation, Rec. V, 731.
- root plant louse, notes, Rec. II, 80.
- roots—
 - affected by crane flies, Rec. XI, 1066.
 - in Russia, aphids on, Rec. IX, 575.
 - plant lice on, Rec. V, 990.
- sawflies, notes, Rec. III, 546.
- scale, cottony, notes, Rec. VIII, 906; IX, 855.
- seed industry in New Zealand, Rec. IX, 833.
- seeds—
 - analyses, Rec. IX, 956.
 - collection and distribution, Rec. XII, 941.
 - commercial, Rec. II, 601, 632.
 - determination, Rec. V, 821.
 - examination, Bul. 2, I, 174; IX, 757.
 - fungus parasites, Rec. XI, 166.
 - German, production, Rec. IX, 833.
 - germination, as affected by light, Rec. IX, 954.
 - germination, intermittent temperature, Rec. VI, 641.
 - germination tests, Rec. III, 217, 356; IV, 436, 875; V, 334, 628.
 - impurities, Rec. V, 334; VIII, 58; XI, 462.
 - mixing, Rec. VII, 136.
 - North American, Rec. V, 667.
 - tests, Rec. IX, 953; XII, 565.
 - vitality, Rec. VI, 641.
 - weed seeds in, Rec. XI, 1054.
 - without integuments, germination tests, Rec. IV, 875.
- thrips—
 - notes, Rec. XII, 468.
 - remedies, Rec. XI, 561.
 - studies, Rec. XII, 266.
- tick, remedies, Rec. XI, 891.
- utilization of nitrogen in different forms, Rec. XI, 722; XII, 527.
- worms, southern, notes, Rec. V, 206; VII, 878.
- young, lecithin content, Rec. V, 803.

Grass tree gum, Rec. VI, 754.

Grasserie of silkworms, notes, Rec. III, 183.

Grasses— (*See also specific kinds.*)

- African, new species, Rec. V, 648.
- agricultural, of Kansas, Rec. XI, 420.
- American, notes, Rec. IX, 421, 812; X, 518; XI, 219; XII, 24, 1013.
- analyses, Bul. 2, I, 187; Bul. 2, II, 45; Rec. II, 319, 329, 487, 491; III, 82, 890; V, 64, 330, 331; VI, 101; XII, 547, 1038.
- anatomical study of stems, Rec. V, 1028.
- and clovers—
 - culture for soiling, Rec. IV, 29.
 - effect of ripeness on yield and chemical qualities, Bul. 2, I, 66.
 - experiments with, Rec. II, 69, 70, 632, 633.
 - for meadows and pasture, Rec. VI, 405; X, 847.
 - resowing winterkilled fields, Rec. XI, 44.
- handbook, Rec. IX, 1048.
- of different regions, comparison, Rec. XI, 156.
- tests of mixtures, Bul. 2, II, 84.
- and fodder plants on Potomac flats, Rec. XII, 1037.
- fodder plants, Rec. III, 281; IV, 248, 907; V, 679, 680; VI, 403; X, 838.

Grasses—Continued.

- and forage plants—
 - analyses, Bul. 2, I, 173; Rec. VI, 403.
 - apparatus for drying, Rec. II, 483.
 - culture experiments, Rec. V, 161, 577, 679, 680.
 - experiments, Rec. III, 28, 281, 514.
 - for Mississippi, Rec. IV, 248.
 - of Alabama, Rec. I, 183.
 - foreign countries, Rec. VII, 209.
 - Iowa, Nebraska and Oregon, Rec. IX, 623.
 - species, Rec. V, 38.
- and legumes, observations on, Rec. II, 200.
- plants at Tennessee Station, notes, Rec. VII, 122.
- weeds as affected by liming, Rec. XII, 634.
- androecium and gynecium of, Rec. V, 253.
- as affected by—
 - nitrogenous fertilizers, Rec. XI, 539, 835, 836.
 - shade, Rec. XII, 138.
- as sand and soil binders, Rec. VII, 492.
- soil builders, Rec. IX, 829.
- best agricultural, Rec. II, 600.
- castor pomace as a fertilizer for, Rec. IV, 133.
- cause of failure, Rec. XII, 337.
- clovers and forage crops, Rec. X, 236.
- collected in Iowa and Colorado, Rec. VIII, 268.
- collecting and preserving, Rec. I, 183.
- collections, Rec. II, 512.
- composition at different stages of growth, Rec. III, 890.
- condition, Rec. III, 107, 183.
- condition August, 1892, Rec. IV, 283.
- cooperative—
 - experiments, Rec. XI, 1032, 1033.
 - investigations, Rec. XII, 332, 935.
- culture, Rec. IX, 134.
- culture—
 - experiments, Bul. 2, I, 61, 65, 66; Rec. II, 70, 147, 300, 316, 329, 375, 411, 511, 572, 633, 642; III, 51, 82, 84, 360, 599, 875; IV, 38, 108, 145, 346, 646; V, 325, 577; VI, 290, 531, 720; X, 340, 736, 1006; XI, 43, 339; XII, 229.
 - for seed, Rec. X, 348.
 - in Iceland, Rec. X, 920.
- destruction on cattle ranges, Rec. XI, 220.
- digestibility, Bul. 2, II, 53; Rec. I, 35; X, 1082.
- digestibility of protein, Bul. 2, II, 61.
- digestion experiments with, Bul. 2, II, 45, 127.
- diseases of, Rec. II, 602.
- economic, Rec. X, 718; XII, 421.
- effect of fertilizers on composition of, Rec. IV, 29; V, 579.
- ensiling, Rec. VI, 242.
- ensiling, losses in, Rec. III, 640.
- fertilizer experiments, Rec. II, 597; III, 377; IV, 28, 39, 75, 108, 129, 130; V, 51, 171, 291, 526, 575, 578, 579, 707, 710, 852; VII, 121, 943; VIII, 588, 778; IX, 746, 829; X, 848; XI, 140, 151, 230, 332, 530, 641, 838, 1027, 1028, 1037; XII, 44, 228, 338, 441, 547, 633, 739, 935, 941, 1036.
- field experiments, Bul. 2, I, 66; Rec. II, 70, 147, 300, 316, 329, 375, 411, 511, 572, 633, 642; IX, 134.
- fodder, of northern hemisphere, Rec. IX, 833.
- fodder, Rec. IX, 348.

Grasses—Continued.

- for arid regions, Rec. II, 259, 267.
- Arkansas, Rec. XII, 634.
- California, Rec. III, 595.
- hay, Rec. XI, 145.
- jackpine plains, Rec. II, 357.
- Kansas, Rec. XII, 898.
- lawns, tests, Rec. III, 532; IX, 651; XI, 743; XII, 347.
- marshy soils, Rec. XII, 849.
- moor soils of Germany, Rec. XI, 43.
- overflowed lands, Rec. VIII, 60.
- pastures and meadows, Bul. 2, I, 110; Rec. I, 254; II, 238, 320, 329; III, 128; VI, 405; XI, 145; XII, 849.
- protection of shores and harbors, Rec. VI, 415.
- the South, notes, Rec. XI, 241.
- from Johore, Rec. V, 1028.
- grazing, of western Kansas, Rec. XI, 498.
- handbook, Rec. VII, 370; IX, 1048.
- identification, Rec. VI, 487.
- importance of—
 - cultivation, Rec. II, 600.
 - introduction of new varieties, Rec. II, 650.
- improvement of native species, Rec. V, 293.
- insects affecting, Rec. II, 602; XI, 766; XII, 973.
- insects affecting—
 - in Finland, Rec. XII, 970.
 - Washington, D. C., Rec. III, 548.
- remedies, Rec. V, 515; XI, 1064.
- kainit for, Rec. V, 710.
- liming experiments, Rec. V, 526, 711; XI, 136, 642; XII, 133, 634, 732, 898.
- little-known species, Rec. IX, 328.
- manures for, Rec. II, 602.
- mixed—
 - analyses, Rec. VI, 752.
 - for soil'ng, Rec. IV, 480.
 - test of species, Rec. VI, 532.
- mixtures *v.* pure sowing, Rec. II, 601.
- morphology, Rec. VII, 372.
- mountain, notes, Rec. I, 316.
- native—
 - analyses, Rec. XII, 471.
 - ornamental, Rec. VII, 772, 837.
- new species, Rec. V, 326; VI, 18; VII, 371, 468, 469, 563, 838; VIII, 567; X, 515; XI, 28.
- new species from—
 - Mexico, Rec. V, 327.
 - the Southern States, Rec. XI, 1037.
- new types, production, Rec. X, 927.
- nitrate of soda *v.* sulphate of ammonia for, Rec. V, 233.
- nitrogen content increased by nitrogenous fertilizers, Rec. IV, 29.
- nitrogenous fertilizers for, Rec. V, 578, 852.
- notes, Rec. II, 650, 740; XI, 28, 120, 315, 339, 833, 927; XII, 419, 547, 945.
- notes and analyses, Rec. V, 437.
- of Arizona, Rec. III, 280.
- Central Texas, Rec. X, 342.
- Colorado, Rec. II, 319.
- Florida, Rec. II, 491.
- Indiana, description, Rec. I, 209.
- Iowa, Rec. VIII, 205.

Grasses—Continued.

- of Iowa, ecology, Rec. XI, 709.
- Lower California, Rec. V, 937.
- Mexico, new species, Rec. VIII, 749.
- Nebraska, notes, Rec. XI, 319.
- North America, Rec. VII, 748; VIII, 379; IX, 327, 451.
- Northwest Canada, analyses of hay, Rec. XI, 873.
- Oklahoma, Rec. XI, 1015.
- Ontario, Rec. VIII, 975.
- Rocky Mountain region, Rec. VIII, 781; X, 541.
- salt marshes, Rec. VIII, 781.
- South Dakota, Rec. XI, 319.
- Tennessee, Rec. IV, 249; VI, 691.
- the Dakotas, Rec. VIII, 883.
- the Pacific coast, Rec. V, 326.
- the Pacific slope, Rec. IV, 498, 951.
- the plains, Rec. II, 320.
- the Southeastern States, notes, Rec. VII, 575.
- the Southwest, Rec. II, 259; III, 548.
- the United States and British America, monograph, Rec. III, 631.
- Uruguay, Rec. V, 925; VIII, 291.
- West Australia, Rec. X, 416.
- Wyoming, Rec. III, 51; XI, 319.
- on moor soils in Prussia, experiments, Rec. X, 1013.
- phosphates for, Rec. IV, 129.
- phosphatic slag for, Rec. XI, 141.
- plaster as a fertilizer for, Rec. IV, 133.
- prairie—
 - analyses, Rec. V, 292; VI, 403.
 - culture experiments, Rec. VIII, 401.
 - root system, Rec. XII, 517.
- relation of different parts, Rec. X, 1083.
- sand-binding, Rec. XI, 423, 1034.
- seeding, Rec. IX, 553; X, 348, 397, 432; XII, 337.
- seeding—
 - at different dates, Rec. III, 785; X, 836.
 - different depths, Rec. IV, 720.
- experiments, Rec. XII, 537.
- with and without nurse crop, Rec. XI, 140.
- with nurse crops, Rec. XII, 629.
- without a nurse crop, Rec. X, 431.
- soil tests, Rec. X, 938.
- species, Rec. III, 284, 386, 625, 703, 860; IV, 411; V, 293, 330, 623, 625.
- species, tests, Rec. XI, 818.
- structure—
 - and life of fruit of, Rec. V, 818.
 - of caryopsis, Rec. XI, 423.
- syllabus of instruction, Rec. XI, 1099.
- Tipula affecting, Rec. XI, 1066.
- useful and ornamental, Rec. VIII, 687.
- varieties, Rec. II, 300, 316, 329, 375, 511, 633; VIII, 975; IX, 241, 242, 829, 833; X, 238, 627, 836; XI, 631, 632; XII, 44, 229, 329, 436, 629, 849.
- yield of, Rec. II, 487.
- Grasshopper. (See LOCUST.)
- Gratz, Austria—
 - Pomological Experiment Station, report, Rec. XI, 157.
 - Seed Control Station, report, Rec. VI, 428; VII, 871; XI, 157.

Gravel—

- and sand in digestive tract of hens, Rec. X, 677
- for hens fed millet, Rec. VIII, 718.

Gravimeter for sugar analysis, Rec. VI, 273.

Gravitation, effect on movements of ground water, Rec. XI, 517.

Gravity, effect on growth of fungi, Rec. XI, 726

Gray blister beetle, Rec. IX, 855.

Gray field slug, notes, Rec. XI, 371.

Gray plant bug, notes, Rec. III, 784.

Gray-streaked moth, notes, Rec. VIII, 712, 1002

Grease mixtures for caterpillars, Rec. VII, 307.

Greasewood—

- ash constituents, Rec. III, 373, 592.
- notes, Rec. III, 521, 522.

Greasy bog grass, notes, Rec. II, 486.

Great Britain—

- agricultural statistics. (See STATISTICS.)
- Board of Agriculture, Rec. V, 740.
- cereal products, Rec. V, 660.
- hay yield in, Rec. III, 835.
- schools of chemistry in, Rec. VII, 271.

Great horned owl, notes, Rec. VI, 695.

Great Lakes—

- currents, Rec. VI, 19.
- display of wind signals on, Rec. VII, 21.
- level as affected by precipitation, Rec. XI, 622.
- meteorological charts, Rec. XI, 621, 912.
- periodic fluctuation, Rec. VIII, 111; X, 326.
- rainfall and outflow, Rec. X, 325.
- storm signals, Rec. XI, 127.
- water temperatures, Rec. XI, 620.
- weather forecasts as related to maritime interests, Rec. XI, 126.

Great Plains, summer hot winds of, Rec. V, 1035.

Great titmouse, Rec. IX, 230.

Green arsenite for cottonwood leaf beetle, Rec. X, 467.

Green brier, notes, Rec. III, 521.

Green clams, notes, Rec. V, 411.

Green-colored sun of November 9 and 10, 1883, Rec. VII, 474.

Greeneria fuliginea, notes, Rec. VII, 769.

Green fly—

- blight, treatment, Rec. VII, 593.
- notes, Rec. VII, 144.

Green-fruit worms, Rec. IX, 967.

Green-fruit worms, treatment, Rec. VIII, 803.

Green gram, culture experiments, Rec. VI, 982.

Greenhouse—

- aphis, remedies, Rec. XI, 473.
- at Bernburg Station, Rec. V, 752.
- Ohio Station, Rec. IV, 950.

benches—

- for experiment work, Rec. VI, 267.
- subirrigation, Rec. VI, 267.
- subwatering, Rec. XI, 50.
- movable, Rec. VIII, 408.

cheap and efficient, Rec. VIII, 791.

crops, special fertilizers, Rec. II, 235.

culture of—

- lettuce, Rec. IV, 411.
- grapes, Rec. VIII, 772.
- plants, early history, Rec. X, 641.
- tomatoes Rec. IV, 411.

insects, fumigation, Rec. VII, 882.

orthesia, notes, Rec. VII, 141.

Greenhouse—Continued.

pest, new species, Rec. VI, 65.

pests, fumigation, Rec. VII, 401.

plants—

as affected by algæ, Rec. XI, 906.

burned by the sun, Rec. VII, 965.

cold *v.* warm water for, Rec. X, 755, 756, 758.

culture, Rec. VIII, 54.

fertilizers for, Rec. III, 290; IV, 412; V, 303.

insects affecting, Rec. XI, 765.

roofs, substitutes for glass in, Rec. IV, 828.

Greenhouses—

at California University, Rec. V, 132.

construction, Rec. I, 83, 98; II, 236; VI, 548; X, 758, 1045; XII, 152, 952.

description, Bul. 2, II, 87.

disinfecting, Rec. XI, 552.

equipment, Rec. V, 1034.

forcing crops for, Rec. IV, 414.

fumigation with hydrocyanic-acid gas, Rec. VIII, 712; IX, 471; X, 771, 1075.

glazing, Rec. I, 83; III, 107.

health of plants in, Rec. VI, 873; VIII, 791.

heating, Rec. I, 82, 225; II, 104, 236; III, 289;

VII, 585; VIII, 889, 984; IX, 899, 1053; X, 641.

heating—

by steam at low pressure, Rec. XI, 155.

overbench *v.* underbench, Rec. IV, 412; V, 302.

steam *v.* hot water, Rec. I, 82, 225; IV, 848; V, 295; VI, 424; VII, 400, 585.

hygrometers in, Rec. XI, 937.

inexpensive forms, Rec. XI, 937.

injurious fungi in, Rec. V, 348.

irrigation, Rec. VIII, 792.

lath shading, Rec. IX, 560.

management, Rec. X, 50; XI, 937.

subirrigation in, Rec. IV, 413; V, 680; VI, 170, 267, 290; VII, 504, 686; VIII, 47; IX, 557, 1050, 1053; X, 264, 397, 854; XI, 50.

water bench for, Rec. IV, 413.

Greening of oysters, Rec. V, 733; XI, 426; XII, 424.

Green lice, notes, Rec. IX, 1065.

Green manure—

utilization of nitrogen of, Rec. V, 1098; VI, 133.

v. barnyard manure, Rec. V, 140, 436; VI, 27, 396, 798.

barnyard manure for white mustard, Rec. VII, 292.

Green manures, use, Rec. III, 148.

Green manuring, Rec. VII, 25; X, 533, 834, 956.

Green manuring—

and fallowing on heavy soils, Rec. X, 956.

cowpeas for, Rec. III, 535; IV, 912; V, 174, 776;

VI, 528, 538, 794, 803, 885; VII, 668; VIII, 42, 969; X, 35; XI, 254.

crops, analyses, Rec. X, 1022.

crops for, Rec. III, 927; IV, 207, 222; V, 113, 436, 548, 699; VI, 412, 794, 803; VII, 31, 100,

207, 210, 292, 379, 490, 581, 668; VIII, 42, 118, 216, 299, 312, 400, 682, 969; IX, 123, 134, 234,

340, 446, 825; X, 348, 836, 845; XI, 254, 442, 534, 538, 833, 917; XII, 849.

Green manuring—Continued.

- effect on subsequent crops, Rec. V, 436.
- experiments, Rec. III, 112, 927; V, 776; VI, 27; VII, 294; VIII, 880; IX, 236; XII, 534.
- for barley, Rec. V, 701; VI, 541; IX, 134.
- corn, Rec. II, 10; IV, 718; V, 169; VIII, 400; IX, 340; XI, 921.
- cotton, Rec. II, 10; III, 535, 762; V, 174; VI, 528, 885; XI, 921.
- grapes, Rec. VI, 143; VIII, 231; X, 963; XI, 452; XII, 346.
- heavy soils, Rec. VII, 379.
- orchards, Rec. IX, 950.
- potatoes, Rec. V, 701; VI, 292, 722; VIII, 216.
- rye, Rec. V, 701.
- sugar beets, Rec. VII, 498.
- wheat, Rec. IV, 207; V, 331; VI, 803; IX, 234.

in Sweden, Rec. VI, 27.

- lupines for, Rec. V, 128; VI, 412; VII, 31, 100, 210, 292; VIII, 118, 969; IX, 134, 234, 446; XI, 534; XII, 1031.

plants—

- culture experiments, Rec. XII, 229.
- fertilizing effect, Rec. VIII, 758.
- plants for orchards, Rec. XII, 798.
- pot experiments, Rec. XII, 223.
- utilization of cover crops, Rec. XI, 538.
- value of, Rec. IV, 985; V, 860; XI, 538.
- v. soiling, Rec. V, 346.
- soiling with pea vines, Rec. V, 175.
- with autumn catch crops, Rec. XI, 829.
- cowpeas for wheat, Rec. IV, 912.
- crimson clover, Rec. IV, 208, 557; V, 391, 699, 776; VI, 205; VIII, 216; IX, 134; XI, 833.
- leguminous plants, Rec. IV, 782; V, 225, 730, 1087; VII, 379, 490.
- spurry, Rec. IV, 822.
- sweet clover, Rec. IV, 315; V, 701.
- white mustard, Rec. V, 652; VIII, 400; IX, 340.
- without cattle, Rec. VIII, 537.

Green plant bug, Rec. X, 460, 571.

Green sand—

- analyses, Rec. II, 142.
- marls, analyses, Rec. II, 741.

Green scale, fungus disease, Rec. XI, 275.

Green soldier bug, notes, Rec. V, 409.

Greenwich noon, Rec. X, 124.

Gregarines—

- in insects, Rec. XII, 598.
- parasitic organism, Rec. IX, 967.

Grevillea robusta, notes, Rec. II, 607.

Grignon, France, Experiment Station, investigations, Rec. V, 3.

Grindelia squarrosa, notes, Rec. IV, 699; V, 306; VIII, 703; X, 343; XII, 350.

Grinding apparatus, Rec. VIII, 862.

Groats, analyses, Rec. IV, 59.

Groningen, Netherlands, Experiment Station at, Rec. V, 671.

Grotes exiguus, notes, Rec. VIII, 910.

Ground beetle—

- as an enemy of the locust, Rec. III, 228.
- elongated, notes, Rec. IV, 58.

Ground beetle—Continued.

fiery—

- as an enemy of caterpillars, Rec. V, 206.
- notes, Rec. IV, 58; V, 499.
- green, notes, Rec. IV, 58; V, 499.
- murky, notes, Rec. IV, 58; V, 499.
- notes, Bul. 2, II, 93.

Ground beetles, trapping, Bul. 2, I, 170.

Ground bone. (See BONE, GROUND.)

Ground bug, large-eyed, Rec. VI, 150.

Ground cherry— (See also *PHYSALIS*.)

- Japanese, notes, Rec. VII, 773.
- seed moth, notes, Rec. VIII, 504, 911.
- varieties, Rec. VII, 125.

Ground feed, analyses, Rec. II, 589; VIII, 719.

Ground fleas, remedies, Rec. XI, 174.

Ground ivy, destruction by—

- iron sulphate, Rec. XII, 351.
- metallic salts, Rec. XII, 1052.

Ground nut—

- analyses, Rec. XII, 677.
- eradication, Rec. IX, 142.

Ground plum. (See *ASTRAGALUS CARYOCARPUS*.)Ground squirrels. (See *SPERMOPHILES*.)

Ground water—

- as affected by—
 - forests, Rec. XII, 426.
 - plant covers, Rec. VII, 848.
- depth of penetration, Rec. XI, 517.
- fluctuation, Rec. V, 486.
- movements, Rec. XI, 517; XII, 426.
- origin and movement, Rec. XII, 731.
- surface—
 - configuration, Rec. XI, 517.
 - elevation as affected by precipitation and percolation, Rec. XI, 517.

Ground waters, theoretical flow, Rec. XI, 519.

Grounds, natural beauty, Rec. IX, 140.

Grouse fly, notes, Rec. XII, 1060.

Groves. (See *FORESTS*.)

Growing season in 1898, duration, Rec. XI, 430.

Growth—

- annual, as related to hardiness, Rec. VI, 993.

characteristics, transmission, Rec. XI, 910.

Grub in head of sheep, Rec. II, 79; III, 152.

Gruyère cheese. (See *CHEESE*.)*Gryllotalpa*—

- borealis*, notes, Bul. 2, I, 99.
- hexadactyla*, notes, Rec. XII, 162.
- sp., notes, Rec. VIII, 506.
- vulgaris*—
 - notes, Rec. VII, 315; VIII, 911.
 - remedies, Rec. IV, 873.

Gryllus—

- assimilis*, notes, Rec. IX, 63.
- campestris* destroying forests, Rec. VI, 731.
- domesticus*, notes, Rec. IX, 63, 151.
- luctuosus*, notes, Rec. IX, 63.
- neglectus* on cranberry bogs, Rec. IV, 565.
- sp., notes, Rec. III, 812.

Grynocharis 4-lineata, notes, Rec. X, 168.

Guanidin—

- and its compounds, thermochemical, study, Rec. III, 924.

occurrence in plants, Rec. III, 914.

Guanin in cane juice, Rec. XI, 310.

Guano—

bat, analyses, Rec. I, 198; II, 142, 275; III, 6, 146, 764; V, 165, 737; VII, 366; X, 337, 1031, 1034; XI, 438, 719; XII, 39, 933.

bird, analyses, Rec. VIII, 682.

Bolivian—

for corn, Rec. II, 484.

potatoes, Rec. II, 458.

Damaraland, analyses, Rec. XI, 314.

deposits—

notes, Rec. VI, 522.

of Eritrea, Rec. XII, 1025.

determination of—

nitrogen in, Rec. VI, 609; VII, 652; VIII, 22, 23, 741.

phosphoric acid in, Rec. V, 1009.

fish. (See FISH.)

Mona Island. (See MONA ISLAND.)

Orchilla—

analyses, Rec. VIII, 300.

use, Rec. III, 294.

Peruvian—

analyses, Rec. VII, 854; IX, 919.

deposits, Rec. VIII, 40; X, 1034.

industry, Rec. XI, 917.

statistics, Rec. XII, 38.

trade in Peru, Rec. X, 186.

uric acid in, Rec. VIII, 286.

Utah, analyses, Rec. IX, 825.

Guanos—

analyses, Bul. 2, I, 22; Rec. I, 221; II, 481, 581, 582; III, 592; V, 575; VI, 980; VIII, 41, 485; IX, 436, 1044; X, 230, 235, 623.

and nitrogenous superphosphates, analyses, Rec. XI, 719.

Guava—

culture and uses, Rec. VIII, 600.

mealy-wing, notes, Rec. V, 327.

of Sardinia, Rec. VII, 308.

Guavas, notes, Rec. V, 587; VI, 636; X, 254.

Guernsey—

Alderney, and Jersey cows in Germany, Rec. IV, 233.

cattle—

experiments, Rec. II, 162, 499.

in Germany, Rec. VII, 891.

notes, Rec. XI, 983.

cow, test, Rec. X, 782.

cows—

composition of milk from, Rec. II, 163, 404, 441; III, 312; V, 207, 945, 946.

feeding tests, Rec. IV, 255, 263, 268.

yield of milk, Rec. II, 404.

Guevina avellana, notes, Rec. VIII, 231.

Guignardia—

baccæ, notes, Rec. XII, 966.

biduelli, notes, Rec. VI, 558; XII, 966.

Guilielma speciosa, notes, Rec. VI, 820.

Guinea corn—

as a forage plant, Rec. III, 51.

culture, Rec. IX, 1048.

Guinea fowls—

breeding, care, and value, Rec. XII, 781.

hybridizing, Rec. IX, 1031.

Guinea grass—

analyses, Rec. X, 1089.

culture experiments, Rec. VIII, 306, 401.

Guinea grass—Continued.

feeding value, Rec. XI, 482.

hay, preparation, Rec. X, 245.

notes, Rec. VI, 694.

Guinea pepper, notes, Rec. V, 915.

Guinea pigs—

epizootic disease, Rec. XII, 394.

for repression of rats, Rec. V, 730.

growth as affected by composition of milk, Rec. XI, 576.

septicemia, Rec. XI, 291.

susceptibility to hemorrhagic septicemia of poultry, Rec. XII, 991.

tuberculosis in, Rec. XII, 993.

tuberculous, tuberculin in treatment of, Rec. IV, 316.

Gulf stream—

drift, Rec. XII, 521.

myth, Rec. XII, 831.

Gulf storm of October, 1894, Rec. VI, 702.

Gum—

camphor as an insecticide, Rec. II, 71.

flow—

of trees, Rec. XI, 28.

repression in stone-fruit trees, Rec. VII, 868.

forest, red, notes, Rec. XI, 1052; XII, 39.

grass-tree, Rec. VI, 754.

in Acacias, formation, Rec. VII, 468.

plant, broad-leaved, notes, Rec. XII, 350.

producing plants in the French colonies, Rec. XII, 954.

spotted—

ash analyses, Rec. XII, 39.

notes, Rec. VII, 955; XI, 747.

weed. (See ROSINWEED.)

wood, Rec. VI, 754.

Gumbo soils, water soluble matter in, Rec. XI, 224.

Gumming of sugar cane, Rec. V, 821.

Gummosis of—

Carpinus betulacea, Rec. VI, 233.

medlars, Rec. X, 59.

sugar cane, Rec. V, 821; VII, 513, 695; X, 56.

Gums—

analysis methods, handbook, Rec. XI, 1008.

and food materials, determination of gelatin, Rec. X, 821.

peptic substances, study of, Rec. IV, 314.

resins exuded by Queensland plants, Rec. VIII, 285.

chemistry and botany, Rec. VIII, 466.

in wheat and oat straw, Rec. V, 145.

Gun, automatic, for gophers and moles, Rec. VI, 65.

Gunaninpil, notes, Rec. X, 343.

Güstrow, Germany, dairy school at, Rec. III, 661.

Gutierrezia—

euthamiae, notes, Rec. III, 522.

sarothrae microcephala, notes, Rec. X, 343.

Gutta-percha—

notes, Rec. XII, 219.

treatise, Rec. XII, 152.

yielding plants, notes, Rec. XII, 615.

Guzerat rape, notes, Rec. V, 1030.

Gymnetron teter, notes, Rec. XI, 952.

Gymnocladus—
canadensis—
 germination tests, Rec. V, 61.
 notes, Rec. III, 522; IV, 654; V, 660.
dioica, notes, Rec. X, 516.
Gymnosychnus appendiculatus, notes, Rec. X, 866, 869.
 Gymnosperms—
 andrœcium, Rec. X, 418.
 origin and seed habit, Rec. X, 418.
 pollen tubes, Rec. IV, 870.
 seedlings as affected by light and darkness, Rec. XII, 1011.
Gymnosporangium. (See also CEDAR APPLES and ROESTELIA.)
biseptatum, notes, Rec. II, 711.
clavariæforme, notes, Rec. II, 711.
clavipes, notes, Rec. IX, 455; X, 648.
conicum, notes, Rec. II, 711.
ellisii, notes, Rec. II, 719.
fuscus, notes, Rec. VI, 437.
globosum, notes, Rec. II, 711; III, 10; IX, 455.
japonicum and *Rastelia koreænsis*, relationship, Rec. XII, 572.
juniperinum, notes, Rec. VII, 466; IX, 852.
macropus—
 experiments, Rec. X, 865.
 inoculation experiments, Rec. IX, 57.
 notes, Rec. II, 711; IV, 354, 837; V, 62; VII, 875; IX, 455; X, 1042.
 on American fruit, Rec. XII, 971.
 treatment, Rec. III, 878.
nidus-avis, notes, Rec. II, 712; IV, 956.
 sp., distribution in the South, Rec. VIII, 205.
 sp., notes, Rec. VI, 436; XII, 573.
 spp., deformities due to, Rec. V, 1031.
 spp. in Ohio, Rec. IV, 414.
tremuloides, notes, Rec. VII, 466; IX, 852.
Gymnosporangium, Connecticut species, Rec. III, 773.
Gynærium—
argenteum, notes, Rec. IX, 624.
saccharoides, notes, Rec. IX, 624.
 Gynœcium and andrœcium of grasses, Rec. V, 253.
Gypona—
flavilineata, notes, Rec. IX, 153.
octolineata, notes, Rec. IX, 153.
Gypsophila paniculata, notes, Rec. IV, 654.
 Gypsum—
 analyses, Bul. 2, I, 212; Rec. I, 149, 198; II, 315, 481, 581; III, 8, 357, 412, 444, 471, 590; IV, 26; V, 165, 290, 575, 737, 861; VI, 402, 798; VII, 295, 380; VIII, 299, 682, 768; X, 235; XI, 719; XII, 39, 419, 840, 906, 907, 931.
 and muck, analyses, Rec. XI, 1026.
 as a fertilizer, Rec. VI, 549; VII, 573.
 a preservative for manure, Rec. V, 330; VII, 292.
 deposits in Oregon, Rec. VI, 757.
 effect on—
 grapes, Rec. IV, 615; VI, 729; VII, 536; VIII, 701.
 potato scab, Rec. III, 772.
 solubility of potash in soils, Rec. XII, 623.
 for cherry slug, Rec. IV, 416.
 preserving potatoes, Rec. V, 875.

Gypsum—Continued.

for reclamation of alkali soils, Rec. IV, 120; V, 351, 569; VI, 791; IX, 429; X, 235; XII, 946.
 in viticulture, Rec. VI, 729.
 superphosphate, free phosphoric acid in, Rec. V, 471.
v. sulphate of iron for—
 conserving nitrogen in bare soils, Rec. III, 750, 917.
 promoting nitrification, Rec. III, 750, 917.
 with green manures for wheat, Rec. V, 331.
 Gypsy moth—
 arsenites for, Rec. VII, 146.
 commission, work of, Rec. VI, 440; VII, 790.
 control, Rec. XII, 273.
 description and remedies, Rec. I, 225.
 destruction by birds, Rec. XI, 953; XII, 366.
 digestion, Rec. X, 566.
 diseased larvæ, Rec. XI, 1063.
 extermination, Rec. VI, 314; IX, 771; X, 1061.
 extermination in Massachusetts, Rec. XII, 366, 368.
 in America, Rec. X, 370.
 Massachusetts, Rec. IV, 204; VI, 838; VII, 790; VIII, 415, 417, 418; X, 570; XI, 559, 954.
 Russia, Rec. X, 66.
 the United States, Rec. VII, 881; VIII, 148.
 Japanese, parasite, Rec. VI, 440.
 life habits, Rec. XI, 767.
 Massachusetts law against, Rec. III, 183.
 means of distribution, Rec. XII, 663.
 natural enemies, Rec. XII, 577.
 notes, Rec. II, 24; III, 53, 699, 869; IV, 204; VI, 1007; VII, 143; VIII, 807, 809, 911; IX, 262; XII, 167, 271.
 parasite, Rec. III, 869, 870; IX, 674.
 remedies, Rec. V, 310; XII, 468, 576, 577.
 structure of larvæ, Rec. IX, 230.
Habrobracon hebetor, notes, Rec. VII, 596.
Habrolepis dalmanni, notes, Rec. X, 1058.
 Hackberries as ornamental and shade trees, Rec. IX, 650.
 Hackberry—
 branch knot, notes, Bul. 2, II, 34.
 fungus disease, treatment, Bul. 2, II, 35.
 gall mites, Bul. 2, II, 35.
 notes, Rec. II, 741; III, 521, 778; IV, 654; VIII, 604.
Hadena— (See also CUTWORM.)
arctica, notes, Rec. IX, 855; X, 167; XII, 368.
basilinea, notes, Rec. XII, 973.
devastatrix, notes, Rec. II, 719; IV, 354, 416; VI, 151, 314; VIII, 906; XI, 952.
fragilinea, notes, Rec. V, 516; VI, 151.
lignicolor, notes, Rec. II, 719.
mamestra, notes, Rec. IX, 458.
secalis, notes, Rec. XI, 765; XII, 970.
sputatrix, notes, Rec. II, 719.
stipata, notes, Rec. II, 719; VI, 151.
strigilis, notes, Rec. XII, 970.
Hadenella—
lævigata, notes, Rec. X, 770.
subjuncta, notes, Rec. X, 770.
Hadronema militaris, notes, Rec. V, 62.
Hadronotus mesillæ, n. sp., notes, Rec. IX, 262.

- Hæmatines* from blood of animals, Rec. V, 438.
Hæmatobia serrata. (See HORN FLY.)
Hæmatococcus for class demonstration of motile gametes, Rec. VI, 487.
Hæmatoplinoides squamosus, notes, Rec. II, 609.
Hæmatoplinus—
 acanthopus, notes, Rec. II, 609.
 antennatus, notes, Rec. II, 609.
 erraticus, notes, Rec. IX, 254.
 eurysternus, notes, Rec. I, 45; VIII, 806.
 hesperomydis, notes, Rec. II, 609.
 montanus, notes, Rec. IX, 254.
 pedalis, notes, Rec. IX, 67.
 sciuropteri, notes, Rec. II, 609.
 suis, notes, Rec. I, 213.
 suturalis, notes, Rec. II, 609.
 vitula, notes, Rec. VIII, 806.
Hæmatoplinus, notes, Rec. XI, 263.
Hæmatozoa of birds, Rec. V, 730.
Hæmatozoan infection of birds, Rec. X, 497.
Hæmosporidia, life history, Rec. XI, 658.
Hagi—
 culture experiments, Rec. II, 765; VI, 35; IX, 41.
 digestibility, Rec. II, 766.
Hail—
 fall, depth, Rec. IX, 531.
 frequency and extent in United States, Rec. XII, 831.
 injury to wheat and barley, Rec. X, 847.
 notes, Rec. XII, 520.
 prevention, Rec. XII, 502, 520.
 prevention by cannonading, Rec. XII, 122, 316, 521, 725, 920, 1015, 1018.
 protection against, Rec. XI, 1018.
Hailstones, structure, Rec. IX, 531.
Hailstorm—
 effect, Rec. IX, 122, 332.
 in Missouri, Rec. X, 419.
Hailstorms—
 extraordinary, Rec. X, 1020.
 prevention by explosions, Rec. XI, 323, 821.
 statistics, Rec. VI, 878.
Hair—
 and lime, decomposed, analyses, Rec. XII, 39.
 grass—
 analyses, Bul. 2, I, 108.
 northern, as a forage plant, Rec. III, 51.
 tufted, culture experiments, Rec. VI, 531.
 wood, analyses, Rec. IV, 769, 770.
 wood, value for forage in Sweden, Rec. IV, 771.
 iodin in, Rec. IX, 115.
 manure, analyses, Rec. III, 523; IV, 25.
 snakes as enemies of the locust, Bul. 2, II, 93.
 waste, analyses, Rec. VI, 287; VII, 294; VIII, 877.
 worms, notes, Rec. IX, 855; X, 594.
Hairs, glandular, of larvæ of the Nonne, Rec. IX, 965.
Hairy—
 caterpillar, remedies, Rec. II, 415.
 lespedeza, culture experiments, Rec. IX, 41.
 melon vine midge, Rec. IX, 772.
Hakea laurina, notes, Rec. VIII, 605.
Halali as an insecticide, Rec. XII, 578.
- Halictus*—
 ligatus, notes, Rec. IX, 574.
 parallelus, notes, Rec. IX, 574.
Hall grass, notes, Rec. X, 343.
Hall rush, analyses, Rec. VI, 404.
Hall's Coral Fertilizer, analyses, Rec. II, 21.
Hall's Dairy Ration, analyses, Rec. VIII, 426.
Halle, Germany—
 Agricultural Institute of the University, Rec. III, 209; VI, 504.
 Experiment Station, Rec. V, 359, 363, 364, 455, 457; VII, 165, 364, 653.
 Experiment Station—
 botanical investigations, Rec. V, 382.
 description of methods, Rec. VII, 653.
 equipment for vegetation experiments, Rec. V, 379.
 feeding experiments, Rec. III, 507, 509, 557; V, 359, 375.
 feeding stuffs control, Rec. V, 364.
 for the repression of nematodes, report, Rec. III, 656, 820; IV, 970.
 reports, Rec. II, 759; III, 260; VII, 341, 364.
 work, Rec. III, 209.
Halmstad, Sweden, Chemical and Seed Control Station, report, Rec. V, 441; VI, 377; VII, 198, 218, 779; IX, 380.
Halo—
 at Detroit, Rec. XII, 521.
 phenomena, Rec. IX, 531.
 solar, Rec. XI, 222.
Halogen compounds, physiological rôle, Rec. XI, 1008.
Halogens, effect on albuminoids, Rec. IX, 520.
Halophytes—
 metabolism and structure, Rec. X, 321.
 transpiration, Rec. X, 23.
Halos, observation, Rec. IX, 531.
Halteridium, life history, Rec. XI, 658.
Halterophora—
 capitata, notes, Rec. XI, 273, 558, 563, 870, 1065; XII, 857.
 hispanica, notes, Rec. XII, 857.
Haltica— (See also FLEA-BEETLE).
 chalybea, notes, Rec. III, 175, 198; VI, 316; VIII, 803, 999; IX, 858; X, 273; XI, 64, 952.
 foliacea, notes, Rec. IV, 373.
 ignita, notes, Rec. II, 101, 328, 746; X, 369; XII, 364.
 marevagans, notes, Rec. XII, 580.
 nemorum, notes, Rec. VII, 882; IX, 74.
 nigritula, notes, Rec. X, 769.
 punctipennis, notes, Rec. X, 65.
 striolata, notes, Rec. I, 3.
Haltichella, sp., notes, Rec. V, 311.
Halticus—
 bractatus, notes, Rec. VIII, 999.
 concinna, notes, Rec. V, 236.
 minutus, notes, Rec. II, 342.
 saltator, notes, Rec. VIII, 507.
 uhleri, notes, Rec. XI, 364, 471; XII, 166.
Ham beetle, red-legged—
 notes, Rec. VIII, 68.
 remedies, Rec. IX, 65.
Ham mites, remedies, Rec. IX, 65.
Hamamelis virginiana, notes, Rec. III, 522; X, 63.

- Hamburg, Germany—
 Botanical Laboratory, Rec. IV, 875.
 Seed Control Station, report, Rec. VII, 778; VIII, 409; IX, 955.
- Hameln, Germany, Dairy Institute, reports, Rec. V, 1102; X, 388.
- "Hammond's Slug Shot"—
 analyses, Bul. 2, II, 59, 87.
 as an insecticide, Bul. 2, II, 87.
- Hams—
 curing, Rec. XI, 497.
 cheese skippers in, Rec. V, 901.
- Hamster in Belgium, Rec. XI, 371.
- Hand separators. (See SEPARATORS.)
- Handbook—
 for apprentices on large estates, Rec. X, 98.
 of Experiment Station Work, Rec. V, 518.
 Minnesota Plant Life, Rec. XI, 1014.
- Handbooks of deutsche Seewarte, Rec. IX, 531.
- Handmaid moth, notes, Rec. XI, 272.
- Haplismenus—
morulus, notes, Rec. II, 116.
terrificus, notes, Rec. II, 116.
longipes, notes, Rec. VII, 838.
negundinis, notes, Rec. VIII, 838.
- Hardhack, notes, Rec. XI, 354.
- Hard wood, ashes, analyses, Rec. XI, 831.
- Hardiness as related to annual growth, Rec. VI, 993.
- Hardy asters, notes, Rec. IV, 653.
- Hardy catalpa, notes, Rec. IV, 654.
- Hardy hydrangea, notes, Rec. IV, 655.
- Hare—
 new species from Nova Scotia, Rec. IX, 1030.
 tapeworm, Rec. IX, 996.
- Hares—
 Belgian, Rec. XII, 380.
 damage by, in Cape Colony, Rec. V, 354.
- Haricot, etymology, Rec. XI, 250.
- Haricots, forcing, Rec. XII, 1043.
- Harlequin—
 cabbage bug—
 description and treatment, Rec. IV, 58, 204, 254.
 in Oklahoma, Rec. VI, 740.
 notes, Bul. 2, I, 176; Rec. I, 27; II, 718; III, 175; IV, 58, 204, 254; V, 63, 685; VII, 42, 144, 314, 968; VIII, 418, 505, 999; IX, 68, 662, 664, 670, 1065; X, 66, 457, 571; XI, 955; XII, 62, 974.
 parasite, Rec. V, 206; VII, 314; IX, 776.
 remedies, Rec. IX, 68; XII, 850.
 fly, structure and life history, Rec. XII, 870.
 fruit bug, notes, Rec. VIII, 69.
- Harpalus—
caliginosus—
 affecting strawberries, Rec. XII, 369, 469.
 notes, Rec. II, 116; IV, 58; XII, 862.
pennsylvanicus, notes, Rec. II, 116.
ruficornis—
 destroying strawberries, Rec. IX, 575.
 notes, Rec. XII, 1062.
 sp., notes, Bul. 2, II, 93.
- Harpiphorus—
maculatus, notes, Rec. IV, 415; V, 593; VI, 566; VII, 697; VIII, 505, 906; XI, 954.
tarsatus, notes, Rec. XII, 265.
varianus, notes, Rec. IV, 838.
- Harrington's rainfall charts, Rec. VI, 789.
- Harrissina americana*, notes, Rec. VIII, 904.
- Harrowing—
 and manuring meadow lands, Rec. IV, 782.
 plowing for squash borer, Rec. X, 270.
- Harrow—
 draft, Rec. VIII, 635; XI, 96.
 dynamometer tests of draft, Rec. III, 100.
 tests, Rec. XII, 1097.
- Hart and dart moth, Rec. VIII, 909.
- "Hartsalz," agricultural value, Rec. X, 437.
- Harvard University, endowment, Rec. VIII, 94.
- Harvest—
 mite, remedies, Rec. XI, 174.
 mites, notes, Rec. IX, 254.
 spiders, notes, Rec. IV, 852.
- Harvester, Leonard corn, test, Rec. V, 796.
- Harvesters—
 corn, Rec. VII, 431; IX, 957.
 grain, tests, Rec. V, 350; VI, 252.
 sugar-beet, Rec. VI, 346; VII, 531, 631; VIII, 688.
- Harvests and exports, relation between, Rec. V, 798.
- Harvey water motor, Rec. VI, 346.
- Harvey's Universal Vegetable Food, analyses, Rec. III, 157.
- Haskell oat feed, analyses, Rec. XI, 279.
- Haustoria—
 of *Lathræa* spp., anatomy, Rec. VII, 748.
 some phanerogamic parasites, Rec. V, 650.
 Uredineæ, Rec. V, 345.
- Hawaii—
 experiment station and laboratories, Rec. VII, 746.
 experiment station in, Rec. XII, 1001.
- Hawaiian—
 eruptions, Rec. XI, 429.
 Islands, agricultural conditions, Rec. XI, 497.
- Hawk moth, transformations, Rec. IX, 159.
- Hawk moths, enemies, Rec. II, 116.
- Hawk—
 red-shouldered, notes, Rec. VI, 694.
 red-tailed, notes, Rec. VI, 694.
 rough-legged, notes, Rec. VI, 694.
 sharp-shinned, Rec. VI, 694.
 sparrow, notes, Rec. VI, 695.
- Hawks and owls of the United States, Rec. IV, 852.
- Hawkweed—
 golden, notes, Rec. III, 616; V, 60.
 notes, Rec. III, 217; IV, 472, 872, 986; IX, 956.
 orange—
 notes, Rec. IX, 153, 453, 758, 846; XI, 354.
 remedies, Rec. VIII, 987, 988.
 root system, Rec. IV, 46.
- Hawthorn—
 as host of Gymnosporangium, Rec. II, 712.
 notes, Rec. III, 522; VII, 134.
 tingsis, notes, Bul. 2, II, 58.
- Hay—
 alfalfa, analyses, Rec. IV, 732.
 analyses, Bul. 2, II, 39; Rec. I, 15, 157, 198; II, 50, 243, 340, 504, 582, 589, 666, 667; III, 40, 380, 401, 875; IV, 29, 64, 175, 177, 732; V, 64, 195, 410, 500, 540; VI, 76, 444, 569; VII, 155, 641, 835; VIII, 421; IX, 680, 682, 833; X, 474, 678; XI, 577, 777, 882, 971; XII, 378, 907.

Hay—Continued.

- and pasture, *Anthyllis vulneraria* for, Rec. V, 820.
- artificial drying, Rec. VI, 296.
- caps—
 - tests, Rec. III, 514; VIII, 401; IX, 341.
 - use of, Rec. II, 329, 408.
- clover, analyses, Rec. VI, 274.
- cornstalks and straw as substitutes for, Rec. V, 499.
- crop—
 - annual value, Rec. V, 834.
 - statistics, Rec. VI, 582.
 - of Great Britain, Rec. X, 98.
- curing, Rec. IX, 242.
- digestibility, Rec. II, 459, 460; IV, 87, 223, 975; VI, 317, 568; VII, 317; VIII, 422; IX, 373, 576, 680; X, 880; XI, 566.
- digestibility—
 - with beans, Rec. IV, 975.
 - brewers' grains, Rec. IV, 975.
 - oats, Rec. IV, 976.
- effect of—
 - fermentation on feeding value, Rec. XI, 479.
 - fertilizers, Rec. V, 578; VI, 888; XI, 1072.
 - high temperature, Rec. IX, 679.
 - lime, Rec. X, 633.
 - maturity on feeding value, Rec. IX, 479; X, 274.
 - oats as a cover crop, Rec. X, 340.
 - ripeness on yield and composition, Rec. I, 34.
- fat compounds in, Rec. V, 339.
- fertilizer experiments, Rec. VI, 519; IX, 44, 550; X, 339; XI, 230.
- field experiments, Rec. VII, 765.
- fine rowen—
 - analyses, Rec. XI, 882.
 - digestibility, Rec. XI, 874.
- for cows, Rec. II, 646, 666; III, 473.
- fattening sheep and oxen, Rec. V, 244, 920.
- sheep, Rec. III, 624.
- steers, Rec. II, 646; III, 179; V, 633.
- from barley, wheat, and oats, Rec. VI, 808.
- from mixed grasses—
 - analyses, Rec. IV, 28; V, 596; VII, 614; VIII, 421; XI, 777, 882.
 - digestibility, Rec. VI, 317; VIII, 422.
- from mountain pastures, Rec. IX, 980.
- from Norwegian—
 - fodder plants, analyses, Rec. XI, 79.
 - grasses, analyses, Rec. VI, 568.
- from oats, analyses, Rec. IV, 732.
- peas, analyses, Rec. IV, 733.
- peas and oats for milk production, Rec. V, 1065.
- Sweden, chemical-botanical analyses, Rec. VII, 954.
- wheat and barley, Rec. V, 577; VI, 808.
- fuel value, Rec. XII, 1072.
- glycogen in, Rec. VII, 90.
- grass, Indian, notes, Rec. IX, 453.
- growing—
 - cost and profit, Rec. V, 576.
 - in the Sierra foothills, Rec. V, 578.

Hay—Continued.

- heating and spontaneous combustion, Rec. VI, 242.
- importation in the United Kingdom, Rec. V, 328.
- irrigation experiments, Rec. XI, 537.
- Jamaica and timothy, comparison of food value, Rec. X, 245.
- loss due to exposure, Rec. II, 435; III, 268.
- making—
 - and storing, Rec. II, 328.
 - in Alaska, Rec. XII, 630.
- manuring, Rec. VIII, 596.
- marsh grass, analyses, Rec. V, 64.
- meadows as affected by drought, Rec. V, 621.
- millet, analyses, Rec. IV, 175.
- mixed—
 - analyses, Rec. XII, 907.
 - v. silage for lambs, Rec. IV, 572.
- moldy, poisoning cattle, Rec. XI, 796.
- nutritive value, Rec. XI, 73.
- palatability, as affected by potash salts, Rec. VII, 497.
- partial v. complete fertilizers for, Rec. IV, 130.
- plants for Arkansas, Rec. XII, 634.
- prairie, analyses, Rec. IV, 175.
- presses, tests, Rec. I, 101.
- residual effect of fertilizers, Rec. VIII, 589.
- salt, analyses, Rec. I, 80; II, 581; IV, 64.
- salt-marsh, Rec. X, 698.
- salt-marsh—
 - analyses, Rec. X, 472.
 - digestibility, Rec. X, 473.
 - experiments, Rec. XI, 576.
 - for milk production, Rec. X, 485.
- second quality, analyses, Rec. XI, 882.
- shrinkage in mow, Bul. 2, II, 30.
- spontaneous combustion, Rec. III, 832; VI, 242; VIII, 125; IX, 807; X, 880; XI, 599.
- statistics of production, Rec. V, 612.
- storage, Rec. V, 53.
- substitutes, Rec. VIII, 520.
- Swiss, analyses, Rec. V, 540.
- tea, analyses, Rec. XII, 586.
- timothy, early v. late cut, Rec. II, 645.
- trash for seeding meadows, Rec. V, 925.
- upland, analyses, Rec. IX, 969.
- v. fodder corn for cows, Rec. VIII, 930.
- rice meal and Swedish turnips for sheep, Rec. II, 464.
- silage for cows, Rec. III, 86.
- whole v. cut, for horses, Rec. IV, 71.
- wild, analyses, Rec. IV, 732; IX, 577.
- worm—
 - notes, Rec. IX, 664.
 - repression, Rec. V, 821.
- worms, clover, notes, Bul. 2, II, 118; Rec. III, 97, 414, 784; V, 989; VI, 65, 313, 648.
- yield—
 - and food ingredients, Rec. V, 578.
 - value, Rec. II, 608.
- as affected by fertilizers, Rec. V, 530.
- affected by lime, Rec. VII, 297; X, 633.
- in 1892, Rec. IV, 500.
- Great Britain, Rec. III, 835.
- the United States, Rec. III, 34, 414.

- Haying—
tools and haymaking, Rec. VIII, 307; IX, 349.
machinery, improvements, Rec. VII, 72.
- Haymaking—
methods, Rec. XI, 242.
in France, Rec. IX, 242.
Scandinavian method, Rec. X, 432.
suggestions, Rec. III, 604.
- Haze in Russia, cause, Rec. X, 327.
- Hazel fungus, notes, Rec. V, 193.
- Hazel leaf buds, lecithin content, Rec. V, 803.
- Hazelnut—
oil, composition, Rec. XI, 619.
trees—
culture for fruit, Rec. IX, 1054.
destruction by *Lecanium corni*, Rec. XI, 371.
- Hazelnuts—
culture, Rec. VIII, 230; X, 355.
notes, Rec. III, 521; IX, 353; X, 49.
varieties, Rec. IV, 556; VII, 215.
- Hazen, Henry Allen, notes, Rec. XII, 118.
- Head-cheese—
analyses, Rec. X, 281.
notes, Rec. XII, 907.
- Head scab of sheep, Rec. V, 79.
- Head scab of sheep—
nature and treatment, Rec. III, 537.
notes, Rec. II, 79; VI, 471.
- Healall—
notes, Rec. V, 399.
root system, Rec. IV, 46.
- Health—
and disease—
diet in, Rec. VIII, 156, 331.
microbes in, Rec. VII, 279.
and meteorology, Rec. VII, 474.
strength of man as affected by food, Rec. VII, 708.
as affected by—
climate, Rec. VII, 97.
irrigation, Rec. VIII, 351.
overeating, Rec. IX, 87.
sewage-irrigated fields, Rec. VII, 756.
tuberculous meat, Rec. VIII, 719.
as related to—
climate, Rec. V, 281.
deforestation, Rec. IV, 872.
boards, State, secretaries of, Rec. XI, 998.
of children, effect of milk supply of Leipzig, Rec. V, 927.
of plants—
in greenhouses, Rec. VIII, 791.
under glass, Rec. VI, 873.
of the people, Rec. VII, 73.
public, and animal industry, tuberculosis in relation to, Rec. V, 1046; VI, 77; VIII, 335.
statistics, Rec. V, 1088.
- Hearing in bees, Rec. XI, 172.
- Heart—
analyses, Rec. IV, 59.
diseases, text-book, Rec. XI, 1090.
water—
communication by ticks, Rec. XII, 491.
treatment, Rec. XI, 993.
worm, notes, Rec. IV, 839.
- Heartwood—
borer, notes, Rec. IX, 962.
rots, notes, Rec. XII, 573.
- Heat—
action on casein, Rec. V, 1008.
animal—
as affected by food and fasting, Rec. XII, 981.
chemistry, Rec. XI, 482.
determination, Rec. XII, 178.
sources, Rec. V, 438.
artificial, in wintering bees, Rec. X, 268.
as a cause of coloration and coagulation of milk, Rec. VII, 270.
capacity of soil constituents, Rec. VI, 200.
disengaged in alcoholic fermentations, Rec. VII, 278.
dry, resistance by bacteria, Rec. VIII, 472.
effect—
of diminution on cocoons of silkworm, Rec. XI, 65.
hairy coat of animals on production and radiation, Rec. VI, 242.
on diastatic ferments, Rec. IX, 924.
flavor and color of honey, Rec. X, 157.
milk, Rec. IV, 978; V, 962; VII, 161.
stomata, Rec. XI, 115.
equivalent of the nutrients of food, Rec. VI, 590; VIII, 520.
evolution—
by wounded plants, Rec. IX, 26.
of moistened soils, determination, Rec. XI, 1022.
evolved by soils when moistened as a means of judging their physical properties, Rec. X, 423.
exchange in the soil, Rec. XI, 132.
loss from body as affected by water, Rec. IX, 1080.
of combustion, methods of determination, Rec. IX, 808.
production—
in dogs, Rec. XII, 172.
in the chick before and after hatching, Rec. VI, 931.
radiant—
and frost prevention, Rec. XI, 429.
measurement, Rec. XII, 119.
radiated, effect of water vapor and carbon dioxid on absorption, Rec. XII, 833.
radiation—
between earth and atmosphere, Rec. XI, 132.
of stars, Rec. XI, 819.
rays, effect on plants, Rec. IX, 526.
to destroy potato rot, Rec. V, 61.
under pressure for sterilization of milk, Rec. IX, 388.
value of—
coal, Rec. VII, 809.
proteids, Rec. VII, 425.
- Heated term, July 28 to August 7, 1896, Rec. VIII, 675.
- Heating—
artificial, as affected by atmospheric moisture, Rec. XI, 127.

Heating—Continued.

- greenhouses, Rec. X, 641.
- of laboratory apparatus by carburetted air, Rec. X, 1005.
- power of different woods, Rec. XI, 854.
- value of corn, Rec. IX, 320.

Heats of combustion, investigation, Rec. III, 924.

Heaves in horses, remedies, Bul. 2, I, 105.

"Heavy feed," analyses, Rec. X, 876.

Hecalus lineatus, notes, Rec. IX, 153.

Hecker's hominy, analyses, Rec. VII, 334.

Hedeoma pulegeoides, notes, Rec. VI, 903.*Hedera helix*, notes, Rec. VI, 566.

Hedge—

- mustard, notes, Rec. III, 598.
- plants, notes, Rec. VII, 587.

Hedges—

- care, Rec. III, 107.
- notes, Rec. XI, 353.
- planting, Rec. VII, 134.
- treatise, Rec. XII, 451.
- trees—
 - and shrubs for, Rec. VII, 776.
 - for, Rec. VI, 56; VII, 870.

Hedgehog caterpillar, notes, Rec. IV, 838.

Hedobia granosa, notes, Rec. III, 812.*Hedysarum coronarium*—

- culture experiments, Rec. IV, 646.
- notes, Rec. II, 580; III, 51, 159; V, 577; VI, 34, 531; VII, 206; X, 43.
- organs from roots, Rec. X, 613.

Heel fly. (See Ox BOT.)

Heel scrape and scooter, Rec. VI, 942.

Heifers—

- age of breeding, Rec. VIII, 440.
- corn fodder v. silage for, Bul. 2, I, 161; Rec. II, 204.
- feeding experiments, Bul. 2, I, 66, 160, 161; Rec. I, 9; II, 204; III, 607.
- linseed cake v. dried brewers' grains for, Rec. IX, 166.
- silage for, Rec. I, 140; III, 607.
- silage v. dry-cured fodder corn for, Rec. II, 207, 248.
- spaying, Bul. 2, I, 105.
- v. steers for beef, Rec. VI, 321; IX, 82.

Helcon spp., notes, Rec. IV, 852.*Helenium*—

- autumnale*—
 - notes, Rec. III, 318; X, 516.
 - poisonous effects on calves, Rec. I, 233.
- tenuifolium*, root system, Rec. IV, 46.

Helianthus—

- annuus*— (See also SUNFLOWER.)
 - composition of etiolated plantlets, Rec. V, 649.
 - composition of seeds, Rec. V, 649.
 - grafting, Rec. IX, 29.
 - insect injury, Rec. X, 273.
 - notes, Rec. III, 598; V, 844; VI, 732; IX, 142; X, 343.
 - symbiosis, Rec. VI, 873.
- californicus*, notes, Rec. III, 598.
- ciliaris*, notes, Rec. VI, 732.
- lætiflorus*, grafting, Rec. IX, 29.
- multiflorus*, notes, Rec. IV, 654.

Helianthus—Continued.*tuberosus*— (See also ARTICHOKE.)

- germination, Rec. II, 456.
- notes, Rec. III, 444; V, 171, 522; VIII, 566; X, 343; XI, 649.
- symbiosis, Rec. VI, 873.

Helianthus, nutation, Rec. XII, 219.*Helicin*, destruction by mold, Rec. IX, 660.*Helicobasidium*—

- monipa*, notes, Rec. VIII, 801.
- purpureum* on grapes, Rec. VII, 410.
- sp., notes, Rec. X, 885.

Heliodines—

- bella*, notes, Rec. IV, 284.
- astraneella*, notes, Rec. IV, 284.
- tripunctella*, n. sp., notes, Rec. IV, 284.
- unipunctella*, n. sp., notes, Rec. IV, 284.

Heliothrips popularis, notes, Rec. VI, 236, 567.*Heliothis*—

- armigera*. (See BOLLWORM.)
- phlogophagus*, notes, Rec. VIII, 146.
- rhexia*—
 - notes, Rec. V, 1079; VIII, 998.
 - remedies, Rec. XI, 471.

Heliothrips astri, notes, Rec. IX, 574.*Heliotropism*—

- and geotropism, correlation, Rec. VIII, 380.
- in *Cassia marylandica*, Rec. V, 827.
- plants, Rec. VIII, 670.
- of the common mallow, Rec. V, 663.
- studies, Rec. VI, 694; IX, 330.

Helium and argon, Rec. VII, 90.

Hellebore—

- American false, notes, Rec. X, 516.
- analyses, Rec. II, 581; V, 206; VIII, 418.
- as an insecticide, Rec. II, 63, 319, 416, 659, 718; IV, 932; V, 62, 63, 64.
- for cabbage—
 - root maggot, Rec. III, 359.
 - root worm, Rec. II, 719.
- for cucumber beetle, Rec. II, 292.
- currant worm, Rec. III, 403.
- preparation, Rec. IV, 840.
- preparation and use, Rec. V, 206; VII, 231; VIII, 54, 240; XI, 174.
- white—
 - analyses, Rec. VIII, 416.
 - for strawberry weevil, Rec. V, 791.

Hellebores, crossing, Rec. X, 153.

Helleborus, classification, Rec. XI, 852.*Helleborus niger*, notes, Rec. VI, 917.*Hellriegel*, life and work, Rec. VII, 657.*Hellula undalis*, notes, Rec. XI, 364, 368; XII, 363.

Helminthiasis, intestinal, of fowls, Rec. XII, 894.

Helminthiasis nodularis, affecting cattle, Rec. XI, 91.

Helminthological studies, Rec. IX, 195.

Helminthology, Italian, bibliography and history, Rec. VI, 933.

Helminthosporium—

- gramineum*—
 - notes, Rec. IV, 415; XII, 911.
 - on winter rye, Rec. X, 155.
- iberidis*, notes, Rec. IX, 659; X, 562.
- inconspicuum*, notes, Rec. II, 482; X, 260.
- inconspicuum britannicum*, notes, Rec. VII, 875.

Helminthosporium—Continued.*lunaria*, notes, Rec. IX, 659; X, 562.*ravenelli*, notes, Rec. VII, 39.*ravenelli*, on *Sporobolus indicus*, notes, Rec. VI, 234.*Helopeltis*—*antonii*, notes, Rec. XI, 273.*theivora*, notes, Rec. VII, 593, 594.*Helopeltis* of India, notes, Rec. VI, 152.*Helorus* sp., notes, Rec. III, 47.*Helotropha atra*, notes, Bul. 2, 1, 99.

Helsingfors, Finland, agricultural-chemical laboratory, report, Rec. X, 116.

Hemoglobinemia of sheep, treatment, Rec. XI, 895.

"Hema-spectroscope comparator," Rec. VII, 18.

Hematite, analyses, Rec. X, 716.

Hematuria—

of cattle, notes, Rec. XI, 894.

studies, Rec. VII, 805.

Hemerobius—*alternans*, parasitic, on white pine cherries, Rec. X, 1065.

sp., notes, Rec. VI, 741.

Hemerocallis affected with *Asteroma*, Rec. XI, 261.*Hemerocallis fulva*, nuclear division, Rec. VIII, 957.*Hemiberlesia*, North American species, Rec. XI, 657.

Hemicellulose—

determination, Rec. X, 606.

formation and dissolution, Rec. VIII, 957.

Hemichionaspis, monograph, Rec. XI, 563.*Hemileia*—*vastatrix*—

affecting coffee, Rec. XI, 1060, 1065.

notes, Rec. V, 627; X, 560.

woodii—

as a cause of leaf disease of coffee, Rec. X, 59.

notes, Rec. IX, 659.

Hemiletes drassi, notes, Rec. V, 311.

Hemiptera—

bacteria normal to digestive organs, Rec. III, 811.

Heteroptera of the British Islands, Rec. VIII, 614.

injurious, distribution, Rec. XII, 368.

of Buffalo and vicinity, Rec. VI, 567.

Colorado, list, Rec. VII, 230.

notes, Rec. XI, 370.

strident aquatic, Rec. V, 821.

Hemisaga hastata, notes, Rec. III, 813.*Hemizonia*—*elegans*, notes, Rec. III, 598.*luzulaefolia*, notes, Rec. III, 598.

Hemlock—

bark, ash analyses, Rec. X, 219.

for tanneries, Rec. VII, 993.

notes, Rec. IV, 655; V, 54, 1101; VII, 134.

Oregon water, notes, Rec. X, 516.

poisonous, notes, Rec. VII, 779; X, 516.

water, notes, Rec. X, 516.

Hemp— (See also CANNABIS.)

and flax, relation between textile strength and hygroscopicity, Rec. V, 441, 726.

Hemp—Continued.

as a green manure for wheat, Rec. V, 331.

ash constituents, Rec. III, 373.

bacterial disease, Rec. VIII, 985.

bowstring—

notes, Rec. VII, 954.

report, Rec. V, 92, 94.

broom rape, Rec. II, 22; VI, 233; IX, 1024.

Colorado River, notes, Rec. VI, 207.

cultivation and manufacture in Madras, Rec. VI, 294.

culture, Rec. VIII, 774, 781; X, 635.

culture—

experiments, Rec. II, 145; V, 291, 1029; VI, 424; VII, 120.

in Europe, Rec. X, 737.

Russia, Rec. XI, 443.

the United States, Rec. I, 299.

tests, Rec. IV, 251.

treatise, Rec. XII, 442.

effect of fertilizers on fiber, Rec. II, 145.

fertilizer experiments, Rec. I, 62; II, 145; IV, 871; VI, 215; VII, 201; VIII, 402.

Florida, notes, Rec. VII, 954.

germination tests, Bul. 2, 1, 30.

henequen, in Yucatan, Rec. V, 345.

Indian, notes, Rec. VI, 207.

investigations, Rec. XI, 44.

Japanese, culture experiments, Rec. IX, 41.

Kentucky, culture experiments, Rec. IX, 41.

Manila, production in the Philippines, Rec. XI, 733.

Mauritius, notes, Rec. VI, 278.

moisture, content and strength, Rec. V, 441.

new disease, Rec. IX, 362.

notes, Rec. XII, 323.

Persian, culture experiments, Rec. IX, 41.

preparation and cultivation for market, Rec. VII, 31.

rosette, for fiber, Rec. VI, 207.

seed cake—

analyses, Rec. VIII, 153.

digestibility, Rec. X, 1083.

seed—

globulins of, Rec. IV, 934.

production in Russia, Rec. X, 244.

tests, Rec. V, 910.

viability, Rec. XI, 158.

sisal—

culture, Rec. XI, 443.

culture in Egypt, Rec. VIII, 306.

culture in Mexico, Rec. XI, 733.

false, report on, Rec. V, 92, 93.

in the Bahamas, Rec. VI, 722.

Yucatan, Rec. V, 345.

varieties, Rec. III, 869; IV, 411.

waste, analyses, Rec. II, 581.

water absorption of seed, Rec. XI, 1056.

Hemp-like hibiscus, for fiber, Rec. VI, 207.

Hen— (See also CHICKENS, FOWLS, and POULTRY.)

feed, analyses, Rec. XII, 282.

flea, Rec. VI, 563, 742; IX, 253.

flea—

in Florida, notes, Rec. VI, 563.

on horses, Rec. VI, 740.

food, analyses, Rec. V, 195.

Hen—Continued.

house refuse, analyses, Rec. VI, 202; VII, 294.
lice, remedies, Rec. V, 328.

manure—

analyses, Bul. 2, I, 42; Rec. II, 232, 588;
III, 162, 523, 764; IV, 25; VIII, 117; XI,
1026; XII, 39, 226.

composting and use, Rec. VII, 757.

value, Rec. II, 588.

tuberculosis, poison in culture products, Rec.
V, 254.

Henbit, notes, Rec. V, 298.

Hendersonia—

geographica, notes, Rec. III, 810.

grossulariæ, n. sp., attacking gooseberries,
Rec. X, 155.

sp., notes, Rec. V, 423.

taphrinicola, n. sp., Rec. VI, 1000.

Henhouses, renovation, Rec. IX, 255.

Henna, studies, Rec. VI, 114.

Hens—

breeds—

at Louisiana Station, Rec. IV, 359.

characteristics, Rec. VI, 931.

notes, Rec. II, 5, 642.

tests, Rec. V, 203; IX, 874; X, 280.

corn for, Rec. III, 36.

digestion experiments, Rec. VIII, 915.

eggs. (See EGGS.)

feather eating, treatment, Rec. V, 202.

feeding experiments, Rec. II, 588; III, 36,
360, 399, 705; IV, 262, 441; V, 201; VI, 77;
VII, 423, 613; VIII, 922, 923; IX, 376; X, 675;
XII, 878.

flesh meal v. cut fresh bones for, Rec. VIII,
425.

gravel and sand in digestive tract, Rec. X,
677.

gravel for, when millet is fed, Rec. VIII,
718.

green clover for, Rec. III, 36.

ground v. whole grains for, Rec. VII, 423;
VIII, 820.

nest box for egg record, Rec. XI, 969; XII,
298.

nitrogenous v. carbonaceous diet, Rec. II,
506; III, 37.

number, for one pen, Rec. XI, 969; XII, 298.

oyster shells for, Rec. III, 705; IV, 262.

rational care and feeding in winter, Rec. V,
733.

salt for, Rec. III, 708; IV, 262.

setting, Rec. III, 359.

tallow for, Rec. III, 707.

vegetable v. animal food for, Rec. VIII, 425.

v. pullets for egg production, Rec. XI, 480;
XII, 674.

Hensel mineral phosphate—

experiments, Rec. VII, 670.

valuation, Rec. VII, 293.

Hensel's mineral fertilizers, analyses, Rec. VIII,
485.

Hepatic elaters, morphology, Rec. V, 936.

Hepaticas, history, culture and varieties, Rec.
VII, 688.

Hepialus lupulinus, notes, Rec. VIII, 612, 909.

Heptameris oscinidis, notes, Rec. V, 311

Herbaceous—

perennials, Rec. VIII, 986.

plants, frost freaks of, Rec. V, 741.

Herbaria—

destruction of insects attacking, Rec. V, 517;
VI, 655.

in their relation to botany, Rec. VII, 94, 188.

Herbarium—

material, preparation and care, Rec. VI, 114.

pest, notes, Rec. III, 414.

specimens for exchange, Rec. XI, 909.

work at Ohio Station, Rec. VII, 690.

Herbicide, analyses, Rec. XII, 273.

Herbivora—

nutrition of, Rec. V, 438, 532.

nutritive value of asparagin for, Rec. V, 438,
532; IX, 1079.

susceptibility to foot-and-mouth disease, Rec.
X, 496.

Herbs—

notes on species of, Bul. 2, II, 136.

perennial, notes, Rec. XII, 313.

varieties, Rec. VIII, 883.

Herd record. (See COWS.)

Herd's grass. (See TIMOTHY.)

Heredity—

color in horses, Rec. IX, 593.

effect on quality of cows' milk, Rec. XII, 482.
in bees, Rec. V, 821.

horses, Rec. VI, 931.

stock raising, Rec. IX, 983.

new law, Rec. IX, 683.

notes, Rec. XII, 982.

theory of, "Keimplasma," Rec. V, 345.

Hereford—

calves, strength of rennet from, Rec. II, 407.

steers, feeding tests, Rec. II, 360.

Hermaphroditism in plants, Rec. VI, 195.

Hermatia illicens, notes, Rec. IX, 1065.

Hernia—

diaphragmatic, in horses, Rec. XI, 191.

scrotal, in stallions, Rec. VII, 987.

Hernösand, Sweden, Chemical Control Station,
report, Rec. V, 438, 441, VII, 690; IX, 380.

Heron, white-fronted, Rec. X, 93.

Heron's bill hay, analyses, Rec. VIII, 810.

Herpes in horses, Rec. X, 497.

Herring—

cakes—

analyses, Rec. VI, 156.

food value, Rec. VI, 156.

guano, analyses, Rec. VIII, 484.

Herrings, salt, analyses, Rec. III, 13.

Hesperogenia stricklandi, notes, Rec. XII, 24.

Hesperomys— (See also HESSIAN FLY.)

crinitus, n. sp., notes, Rec. III, 184.

sp., notes, Rec. II, 258.

Hertz electric waves, influence on plants, Rec. V,
254.

Hessian fly—

as affected by meteorological conditions,
Rec. XI, 1099, 1100.

early accounts of, Rec. IV, 83.

European parasites, Rec. IX, 1068.

"flaxseed stage," Rec. VI, 438.

in New Zealand, Rec. IV, 285; V, 263; VI, 567;
VII, 147.

Hessian fly—Continued.

- in Sweden, Rec. X, 569.
- injuring wheat, Rec. IX, 775.
- injury to cereals, Rec. III, 600.
- life habits, Rec. XI, 476.
- notes, Bul. 2, II, 118; Rec. II, 5, 81, 268, 296, 318, 405; III, 55, 175, 176, 197, 359, 412, 657, 792, 811; V, 576, 926; VI, 151, 236, 316, 438, 654; VII, 147, 316, 514; VIII, 146, 321, 904; IX, 67, 150, 260, 458, 663, 664, 855; X, 65, 164, 169, 457, 872, 1074, 1076; XI, 264, 558, 564, 766, 862, 864, 952, 954, 955; XII, 166, 245, 365, 368, 468, 574, 861, 862, 863, 973, 997, 1060, 1062, 1067.
- on timothy, Rec. X, 769.
- parasites for, Rec. III, 547; VI, 441, 1003; IX, 150; X, 1074.
- ravages in France, Rec. VI, 151.
- remedies, Rec. VII, 883; X, 1075; XI, 175, 658, 959; XII, 640.

Heterakis—

- compar*, notes, Rec. IX, 1092.
- papillosa*, notes, Rec. IX, 294.
- perspicillum*, in fowls, Rec. XII, 894.
- visicularis* in fowls, Rec. XII, 894.

Heterocampa—

- nuntio* on oak, Rec. X, 570.
- suba bicans*, parasite, Rec. II, 731.
- unicolor*, notes, Bul. 2, II, 33.

Heterocera— (See also NEMATODE.)

- radicicola*—
 - as a cause of root tubercles on tomato, Rec. VII, 19.
 - galls, notes, Rec. XII, 462.
 - notes, Rec. I, 185; II, 101, 547; V, 1011; VI, 646; VIII, 608; X, 168, 562, 1054, 1055; XI, 173, 259, 711.
 - on grape roots, Rec. X, 765.
 - roots of *Corylus avellana*, Rec. X, 156.
 - symbiosis with plants in the Sahara, Rec. V, 926, 1011.
- schachtii*—
 - notes, Rec. V, 931; VIII, 500; X, 165, 562; XI, 259, 429, 712.
 - remedies, Rec. IX, 660; XI, 959.

Heterocercous rusts culture experiments, Rec. XI, 59.

Heterogeomys torridus, notes, Rec. VI, 787.

Heteroglenia, new genus, Rec. IX, 470.

Heteronychus arator, notes, Rec. VII, 792.

Heteropogon contortus, notes, Rec. II, 259.

Heteroptera—

- injuring sugar cane, Rec. VIII, 69.
- of Tennessee, Rec. III, 325.
- predaceous, Rec. IX, 468.

Heteropterous hemiptera, odoriferous apparatus, Rec. VII, 44.

Heteropterys portillana, notes, Rec. III, 103.

Heterosporium—

- echinulatum*, notes, Rec. X, 267; XII, 263.
- gracile*, affecting iris, Rec. X, 860.

Heterusia cingala, notes, Rec. XII, 770.

Hexacladia smithii, n. sp., notes, Rec. III, 183.

Hexenbesens—

- of cherry trees, prevention, Rec. IX, 960.
- larch, Rec. V, 1031.
- pine, Rec. VI, 832.

Heydenia unica, notes, Rec. II, 731.

Hibbertia bennetti, notes, Rec. XI, 220.

Hibernation—

- of aphides, Rec. VII, 792.
- studies, Rec. VII, 700.

Hibiscus—

abelmoschus—

- as a fiber plant, Rec. VIII, 125.
- chemical studies, Rec. VIII, 687.

cannabinus—

- culture experiments in India, Rec. V, 333
- notes, Rec. VI, 207.

esculentus, analyses, Rec. XII, 1076.

moscheutos, notes, Rec. VI, 207.

sabdarrifia, notes, Rec. VI, 207; XII, 152, 936.

trionum—

- notes, Rec. V, 399; X, 121.
- root system, Rec. IV, 46.

syriacus, notes, Rec. IV, 655.

vitifolius, outgrowth, Rec. XII, 658.

Hibiscus diseases, treatment, Rec. XI, 752.

Hicoria— (See also CARYA.)

glabra, notes, Rec. VIII, 230.

laciniata, notes, Rec. VIII, 230.

minima, notes, Rec. VII, 775.

ovata, notes, Rec. VIII, 230; X, 416.

pallida, notes, Rec. IX, 452.

pecan, notes, Rec. VIII, 230.

Hickories, propagating, Rec. VII, 775.

Hickory—

- ashes, analyses, Rec. VI, 272, 274; X, 232.
- bark beetle, notes, Rec. IX, 67, 663.

bark borer—

- notes, Rec. IX, 964.
- remedies, Rec. VIII, 904.

big, notes, Rec. III, 521.

bitter, notes, Rec. I, 512; III, 521; IV, 654.

black, ash analyses, Rec. I, 26.

borer—

- notes, Rec. IX, 962; X, 1066; XI, 366.
- painted, remedies, Rec. XI, 63.

nuts—

- abnormal, Rec. VIII, 204.
- culture, Rec. VIII, 230.
- food value, Rec. XII, 78.
- varieties, Rec. VIII, 230.
- wormy, Rec. IX, 962.

trees, notes, Rec. II, 512.

twig borer, notes, Bul. 2, I, 177.

wood, black, ash analyses, Rec. I, 26.

Hide—

- animal, and tannin, Rec. V, 827.
- fleshings, analyses, Rec. VIII, 767.

Hieracium—

aurantiacum— (See also ORANGE HAWK WEED.)

- notes, Rec. III, 217, 616; IV, 472; V, 629; VIII, 987, 988; IX, 143, 454.

root system, Rec. IV, 46.

pratense, notes, Rec. X, 826.

Hieraciums of Scandinavia, notes, Rec. VII, 466.

Hierochloa—

- borealis, notes, Rec. II, 321; VI, 417; VII, 384; IX, 758.

macrophylla, notes, Rec. IV, 498.

rariflora as a forage plant, Rec. VII, 764.

Hieroglyphus furcifer, notes, Rec. XII, 770.

High—

barometer areas north of the St. Lawrence Valley, Rec. VII, 845.

Schools and the Weather Review, Rec. XI, 819.

Highways—

American, Rec. VIII, 635.

construction and repair, Rec. VI, 943.

in Maryland, Rec. XI, 798.

Hilaria—

cenchrroides, notes, Rec. II, 259; X, 147, 343.

jamesii, notes, Rec. II, 321; III, 280.

mutica, notes, Rec. II, 259; III, 280; VIII, 306; X, 147, 343.

rigida, notes, Rec. III, 280, 548.

Hildesheim, Germany, Experiment Station, report, Rec. III, 260.

Hill—

v. drill planting for beans, Rec. IX, 946.

worm, notes, Rec. III, 175.

Hillside terraces or ditches, Rec. VIII, 936.

Hill-sides, irrigation, Rec. VIII, 351.

Hippelates flies, notes, Rec. IX, 670.

Hippiscus, North American species, Rec. IV, 852.

Hippobosca—

bactriana, notes, Rec. XII, 1067.

canina, notes, Rec. XII, 1067.

equina, notes, Rec. XII, 271, 1067.

rufipes, notes, Rec. XII, 1067.

Hippodamia—

ambigua, notes, Rec. VI, 741.

convergens, notes, Rec. II, 116; III, 876; IV, 58, 203; V, 409; VI, 150, 741; XI, 470.

glacialis, notes, Rec. X, 570.

13-punctata, notes, Rec. I, 292; II, 116; VI, 150.

maculata, notes, Rec. IV, 58.

Hippopsis gracilis, notes, Rec. XII, 974.

Hippuric acid—

for nation in animal organism, Rec. IX, 475.

in soils, behavior, Rec. VII, 377, 662.

Hisya anescens—

notes, Rec. XII, 770, 1067.

treatment, Rec. XII, 975.

Hispella wakkeri, notes, Rec. VIII, 320; X, 661.

Hister 6-striatus, notes, Rec. XII, 865.

Histidin, occurrence in germinating seeds, Rec. XI, 1056.

Histogenesis of the tubercle of tuberculosis, Rec. XI, 92.

Histology—

of cell wall, Rec. IX, 422.

role in classification of fungus spores, Rec. IX, 323.

Hoar frost, nitrogen in, Rec. VIII, 675, 676.

H. O.—

feed, analyses, Rec. X, 474; XI, 279, 777, 971; XII, 70, 169.

feeds—

digestibility, Rec. XI, 566, 965.

for cows, Rec. XI, 983.

Hoffmanseggia, revision of North American species, Rec. IV, 374.

Hoffmanseggia stricta, notes, Rec. X, 343.

Hog cholera—

and chicken enteritis, Rec. VII, 805.

other swine diseases, Rec. VII, 252.

Hog cholera—Continued.

and swine plague—

distinguishing, Rec. XI, 696.

immunity, Rec. VIII, 268.

antitoxic serum for, Rec. VIII, 428; IX, 93.

bacillus—

as affected by heat and chemical antiseptics, Rec. XI, 797.

description, Rec. XI, 492.

identification, Rec. X, 496.

nonmotile, Rec. XI, 93.

retention of virulence in milk, Rec. XI, 980.

bacterial investigations, Rec. I, 105.

causation or etiology, Rec. I, 103.

communication by carrion crows, Rec. IX, 893.

description and treatment, Rec. I, 312.

diagnosis, Rec. VII, 712; XII, 692.

diagnosis by means of inoculation, Rec. I, 103.

differential diagnosis, Rec. XI, 985.

endocarditis in, Rec. XII, 294.

eradication in Austria, Rec. XI, 797.

experiments, Rec. XI, 93; XII, 898.

germ, enzymes of, Rec. XI, 997.

germicide, Rec. XI, 812.

Gruber's reaction, Rec. XII, 788.

immunization—

from, Rec. XI, 997.

duration of, Rec. XI, 594.

in Arkansas, Rec. VIII, 525.

Great Britain, Rec. IX, 892.

Idaho, Rec. X, 998.

Iowa, Rec. XI, 997.

New Zealand, Rec. XI, 997.

Norway, Rec. XI, 693.

Pennsylvania, notes, Rec. XII, 684.

United Kingdom, Rec. IX, 294.

infection, Rec. I, 105.

infection, origin of, Rec. XI, 697.

introduction and spread in the United States, Rec. I, 103.

investigations, Rec. III, 152, 319, 729.

local outbreak, Rec. XI, 1086.

notes, Rec. II, 653; V, 79; VI, 472; VIII, 157, 335; IX, 889; X, 296; XI, 190, 290, 393, 995;

XII, 488, 685, 692, 788, 790, 885, 892, 893, 1093.

outbreak near Washington, D. C., Rec. I, 103.

prevention, Rec. IX, 993; X, 396, 596, 893.

protective inoculation, Rec. III, 894; V, 608; X, 496; XI, 793, 797, 892; XII, 194, 294, 395, 993, 994, 1090.

protective inoculation—

Lorenz method, Rec. XII, 391.

Pasteur method, Rec. XI, 594.

with Landsberg serum, Rec. XI, 895.

susserin, Rec. XI, 696, 895; XII, 294.

relation to public health, Rec. I, 105.

remedies, analyses, Rec. XII, 491.

serum—

diagnosis, Rec. VIII, 927.

for immunization, Rec. XI, 495.

preparation and effect, Rec. X, 496.

tests, Rec. XII, 787.

treatment, Rec. XI, 89.

studies, Rec. VII, 67; IX, 193; XI, 191; XII, 92.

sugar beets as a preventive, Rec. IX, 193.

- Hog cholera—Continued.
 symptoms and post-mortem appearance, Rec. I, 103.
 transmission—
 by insects, Rec. XI, 995.
 to man, Rec. XI, 288, 895.
 treatment, Rec. I, 106; VI, 665; XI, 696, 895, 997; XII, 1093.
 treatment, cooperative experiments, Rec. XII, 487.
 virus effects of disinfection, Rec. I, 105.
- Hog—
 itch, notes, Rec. IV, 749.
 louse, remedies, Rec. I, 213.
- Hogs. (See Pigs.)
- Hohenheim Academy, pupils at, Rec. V, 133.
- Hohenheim, Germany—
 Experiment Station, report, Rec. III, 656; V, 927; VII, 198.
 Seed Testing Station, report, Rec. III, 266, 656; VII, 872; XI, 1055.
- Holcus lanatus*—
 analyses, Rec. III, 629; IV, 646.
 notes, Rec. II, 69; III, 29, 41, 85; V, 577; VI, 97; X, 244.
- Holderness cows—
 experiments with, Rec. III, 312.
 feeding tests, Rec. IV, 255, 263, 268.
- Hollies, culture, Rec. VI, 993.
- "Hollow horn" and "hollow tail," Rec. VII, 581.
- Hollyhock—
 anthracnose, Rec. II, 455.
 bug, notes, Rec. III, 291; X, 168.
 butterfly, notes, Rec. X, 164.
 diseases, Rec. II, 303, 599; IV, 53; VI, 825.
 diseases, treatment, Rec. XI, 752.
 fungus disease, notes, Rec. X, 455.
 injury by sawfly, Rec. VI, 739.
 leaf blight, notes, Rec. IX, 657.
 leaf spot—
 notes, Rec. III, 307; IV, 53.
 treatment, Rec. X, 448.
 rust—
 fungicides for, Rec. II, 504.
 notes, Rec. II, 504; III, 161, 307, 479; IX, 1061; X, 448; XII, 262.
 treatment, Rec. III, 403; VIII, 412.
- Hollyhocks—
 culture, Rec. VII, 772; XI, 352.
 notes, Rec. IV, 653.
- Holstein—
 calves, strength of rennet from, Rec. II, 407.
 cattle—
 notes, Rec. II, 147, 642; XI, 983.
 pedigree, Rec. II, 4.
 cows. (See Cows, BREED TEST.)
- Homalocenchrus*—
oryzoides, notes, Rec. VI, 403.
virginica, notes, Rec. VI, 403.
- Homalodisca coagulata*, notes, Rec. IV, 668; IX, 370.
- Homalomyia*—
canicularis, notes, Rec. IX, 63.
 sp., notes, Rec. III, 784.
- Homalotylus*, spp., notes, Rec. IV, 852.
- Home grounds—
 improvement, Rec. X, 855.
 management and improvement, Rec. XII, 649.
- Home-made fancy cheese, Rec. IX, 796.
- Home vegetable gardening, Rec. IX, 357.
- Hominy—
 analyses, Rec. IV, 59; VII, 336.
 chop—
 analyses, Rec. I, 15; IV, 64; VI, 444; XII, 70.
 cost and valuation, Bul. 2, I, 53.
 description, Rec. XI, 971.
 feed, description, Rec. XI, 971.
 feeds, analyses, Rec. IV, 935; VI, 1, 719, 1004; XII, 169, 378, 877.
 meal—
 analyses, Rec. III, 878; VI, 110; IX, 682; XII, 169, 281.
 digestibility, Rec. XI, 566.
 v. corn meal for pigs, Rec. XI, 568.
 mill feed, analyses, Rec. V, 64.
 waste, analyses, Bul. 2, II, 33.
- Homology—
 of members of the plant body, Rec. X, 519.
 organs as shown in cuttings, Rec. IX, 919.
- Homoptera injuring sugar cane, Rec. VIII, 69.
- Homostigma rhoinum*, notes, Rec. VIII, 671.
- Honey—
 adulteration, Bul. 2, I, 100; Rec. III, 814; VI, 615.
 alsike clover for, Rec. VII, 594.
 analyses, Bul. 2, I, 37, 44; Rec. III, 814; IV, 242; V, 127, 160; VI, 190, 274; VII, 463; IX, 809; X, 281; XI, 769, 813; XII, 79, 279, 280.
 analysis, Haenle's method, Rec. IV, 314.
 and bees, Rec. VI, 64.
 pollen-producing plants of Kansas, Rec. XI, 266.
 as affected by—
 removal of stores in brood chamber, Rec. X, 267.
 sprayed fruit blossoms, Bul. 2, I, 36.
 ash analyses, Bul. 2, I, 45.
 candied, apparatus for extraction, Rec. X, 157.
 chemistry, Rec. VIII, 375.
 chemistry, Haenle's, Rec. V, 647.
 comb—
 analyses, Rec. III, 357, 359.
 construction, Rec. VIII, 416.
 foundation experiments, Rec. XI, 271, 557, 653; XII, 265, 658.
 management, Rec. XI, 172.
 production, Rec. IX, 459; X, 267; XI, 271.
 crystalline magmas in, Rec. VI, 241.
 determination, Rec. VIII, 376.
 determination of—
 levulose, Rec. VII, 558.
 moisture, Rec. VII, 558.
 sugar, Rec. VII, 556.
- dextrose and levulose in, Rec. VI, 868; VII, 91.
 dialysis, Rec. IV, 781; V, 647.
 evaporation, Rec. V, 102.
 examination, Rec. V, 258, 676.
 extraction, Rec. IV, 417.
 feeding back to bees, Rec. IX, 673; XI, 61, 370.
 fermentation—
 experiments, Rec. VIII, 375.
 products, Rec. VIII, 719.
 flavor and color as affected by heat, Rec. X, 157.

Honey—Continued.

- flowers for, Rec. VII, 791.
 - from different plants, analyses. Rec. XI, 266.
 - in Germany, official control, Rec. VII, 366.
 - locust. (*See GLEDITSCHIA TRIACANTHOS.*)
 - microscopy, Rec. VII, 266, 557.
 - notes, Rec. IX, 370.
 - planting for, Rec. II, 279, 496; VI, 64.
 - plants—
 - for, Rec. IX, 469.
 - poisonous, Rec. XI, 271.
 - selection, Rec. V, 102.
 - preparation for market, Rec. IX, 674.
 - producing plants—
 - of agricultural importance, Rec. XI, 561.
 - Nebraska, Rec. VI, 1003.
 - the maritime Alps, Rec. XI, 1064.
 - production, Rec. X, 469.
 - production—
 - daily gain, Rec. IX, 857.
 - increase, Rec. XI, 475.
 - in Algiers, Rec. IX, 775.
 - Ontario, Rec. VI, 217, 419.
 - the United States, Rec. V, 1005.
 - quality as related to specific gravity, Rec. XI, 655.
 - Russian, composition, Rec. V, 258.
 - tests, Rec. II, 496.
 - Turkish, Rec. V, 655.
 - use, Rec. XII, 973.
 - vinegar from, Rec. VII, 530.
- Honeybee, history, Rec. X, 768.
- Honeybees, poison, Rec. X, 765.
- Honeydew—
- composition, Rec. V, 348; VIII, 29.
 - notes, Rec. XI, 271.
 - origin, Rec. VII, 657, 837.
- Honeysuckle—
- miner, notes, Rec. IV, 416.
 - notes, Rec. IV, 656.
 - scale, Rec. VIII, 418.
 - small, notes, Rec. III, 522.
- Tartarian—
- notes, Rec. IV, 655.
 - summer propagation, Rec. III, 230.
 - trumpet, notes, Rec. III, 522.
 - yellow, notes, Rec. III, 522.
- Honeysuckles—
- as ornamental shrubs, Rec. XI, 550.
 - notes, Rec. XII, 855.
- Hongkong, trade, Rec. XII, 98.
- Honny tree borer, studies, Rec. VII, 146.
- Hoof—
- analyses, Rec. X, 230.
 - and mouth disease, investigation, Rec. X, 694.
 - disease in cattle, Rec. V, 259.
 - ground, analyses, Rec. VII, 195.
 - meal—
 - analyses, Rec. III, 8; VII, 940; VIII, 877.
 - and cracklings, analyses, Rec. XI, 830.
- Hoorn, Netherlands, Experiment Station, Rec. V, 671.
- Hoose in calves, etiology and treatment, Rec. XII, 395.
- Hop—
- aphis, life history, Rec. XII, 862.
 - bug, notes, Rec. VIII, 148, 418.
 - dogs, notes, Rec. XI, 870.

Hop—Continued.

- fly, notes, Rec. V, 236.
 - growing in California, Rec. VII, 584.
 - jumpers, notes, Rec. V, 236.
 - louse—
 - experiments with, Rec. V, 514.
 - in New York, Rec. V, 514.
 - Oregon, Rec. IV, 285.
 - notes, Rec. II, 660; IV, 84; V, 206, 236; VI, 65, 313.
 - remedies, Rec. IV, 84, 284; V, 206.
 - mash, Rec. V, 130.
 - mildew, notes, Rec. VIII, 507; X, 971.
 - mold, notes, Rec. V, 236.
 - plant—
 - boracic acid in, Rec. V, 539, 619.
 - borer, notes, Rec. IX, 668.
 - louse, repression, Rec. III, 55.
 - press cake, nutritive value, Rec. IV, 449.
 - refuse, analyses, Rec. IX, 939; X, 1033.
 - tannin—
 - and phlobaphene, Rec. VII, 530.
 - changes in, during storage, Rec. VIII, 462.
 - determination, Rec. VIII, 461.
 - effect on wort, Rec. VIII, 462.
 - trees, notes, Rec. IV, 656.
 - vine borer, notes, Rec. V, 629.
 - vine butterfly, notes, Rec. X, 164.
 - vines—
 - analyses, Rec. IX, 867.
 - feeding value, Rec. IX, 867.
- Hoplocampa testudinea*, notes, Rec. VIII, 908; XI, 765.
- Hoplosia nubilata*, notes, Rec. X, 168.
- Hopperdozer for grass leaf hoppers, Rec. IV, 204.
- Hopperdozers, notes, Rec. VII, 593.
- (*See also LOCUSTS.*)
- Hops—
- analyses, Rec. II, 667; XI, 814.
 - and beer, boric acid in, Rec. IV, 616.
 - culture, Rec. X, 147, 955.
 - culture—
 - experiments, Rec. VIII, 689; XI, 230; XII, 745.
 - in Bohemia, Rec. XI, 725.
 - California, Rec. XII, 338.
 - England, Rec. V, 128, 134.
 - Saxony, Rec. XII, 849.
 - determination of bitter principles, Rec. XI, 22.
 - diseases, Rec. XI, 167, 556.
 - drying by fire heat, Rec. X, 955.
 - essential oil, Rec. VI, 754, 869; X, 413.
 - examination, Rec. III, 927.
 - extraction with alcohol of different strengths, Rec. IV, 221.
 - fertilizer experiments, Rec. VII, 867; VIII, 781; XI, 230, 733; XII, 46, 441, 745.
 - fire blast, notes, Rec. VII, 962.
 - germination tests, *Bul.* 2, 1, 30.
 - handbook, Rec. XII, 337.
 - increase in yield per acre, Rec. IX, 242.
 - insects—
 - affecting, Rec. VII, 792; IX, 668.
 - and fungus diseases, Rec. V, 236.
 - snails affecting, Rec. XI, 476.
 - irrigation, Rec. XI, 145.
 - liming, Rec. XI, 145.
 - manual, Rec. XI, 539.

Hops—Continued.

- manuring, Rec. VII, 954; XI, 340.
- monograph, Rec. XII, 942.
- nematode disease, Rec. VI, 311.
- phosphates for, Rec. XI, 340.
- preparation for brewing purposes, Rec. IX, 442.
- production in 1897, Rec. IX, 446.
- quality as affected by fertilizers, Rec. XII, 46.
- red mold, notes, Rec. XII, 859.
- statistics, Rec. XII, 338.
- stored, fungus diseases, Rec. IX, 348.
- studies, Rec. V, 546; VI, 418, 982; XI, 1048.
- sulphuring, studies, Rec. VIII, 499.
- tent caterpillars on, Rec. IV, 373.
- varieties, Rec. V, 134; VIII, 589.
- wire trellis for, Rec. V, 206.
- yield—
 - and quality as affected by time of harvesting, Rec. XII, 232.
 - in Great Britain, Rec. III, 835.

Hordeum—

- crispitum*, n. sp., notes, Rec. XI, 319.
- distichum*, notes, Rec. V, 852.
- jubatum*, notes, Rec. II, 321; III, 598; IV, 699; V, 306; VI, 57, 224, 640; VII, 778; VIII, 794; IX, 142; X, 244.
- maritimum*, analyses, Rec. XII, 471.
- murinum*, notes, Rec. III, 598.
- pratense*, notes, Rec. XII, 436.

Hordeum, revision of genera, Rec. VIII, 749.

Horehound, notes, Rec. X, 760.

Horrodendron hordel, notes, Rec. VI, 147, 647.

Hormomyia—

- bergenstamui*, notes, Rec. IX, 363.
- fagi* as a cause of galls, Rec. XI, 562.

Horn—

- analyses, Rec. X, 250.
- and hoof meal, analyses, Rec. IX, 538.
- beetle, spotted, notes, Bul. 2, I, 179.
- dust, analyses, Rec. V, 777.
- fly—
 - distribution in the United States, Rec. IV, 377, 668.
 - in Alabama, Rec. V, 514.
 - life history, and anatomy, Rec. I, 260.
 - notes, Rec. I, 260, 264; II, 46, 218, 297, 327, 617, 792, 876; IV, 354, 507, 667; V, 63, 64, 205, 311, 1085; VI, 65, 313, 437, 442, 567, 654, 915; VII, 517; IX, 458, 670, 856, 858; X, 459; XI, 272, 864; XII, 82.
 - on horses, Rec. VI, 440, 564, 740.
 - prevalence in Mississippi, Rec. III, 812.
 - remedies, Rec. III, 327; IV, 58; V, 63, 205, 266; VI, 437, 915; VII, 315; VIII, 505; XI, 864; XII, 867, 898.

ground—

- analyses, Rec. VII, 195, 669.
- etc., in ground bone, detection, Rec. V, 466.

shavings, analyses, Rec. II, 481; V, 164.

statistics of production, Rec. VII, 101.

worm. (See PROTOPARCE.)

Hornbeam—

- American, notes, Rec. IV, 654.
- ash analysis of wood and bark, Rec. V, 256.
- notes, Rec. VII, 134.

Hornet, bald-faced, notes, Rec. IX, 63.

Hornless cattle of North Europe, Rec. IX, 786.

Horns of calves, prevention of growth, Rec. V, 204.

Horntail, large, notes, Rec. X, 168.

Horntails—

- classification, Rec. X, 374.
- host plants, Rec. X, 869.

Horse—

- anatomical preparation, Rec. X, 896.
- ancestry, Rec. VII, 617.
- and zebra, crossing, Rec. X, 679.
- Anglo-Norman, Rec. XI, 779.

beans—

- analyses, Rec. II, 200; III, 375; V, 171; VI, 294; VII, 295; IX, 866.
- as a silage crop, Rec. IX, 866.
- assimilation of carbonic acid by, Rec. IV, 613.
- culture experiments, Rec. II, 200, 580; III, 159; IV, 661, 875, 967; V, 171; VIII, 400; IX, 41; XI, 833; XII, 536.
- effect of nickle salts on, Rec. V, 697.
- English, analyses, Rec. V, 631.
- for green manuring, Rec. XII, 534.
- nitrogen content, Rec. V, 347.
- notes, Rec. VI, 294, 886; XII, 328.
- proteids, Rec. X, 214, 219.
- varieties, Rec. II, 156.

bottly, notes, Rec. V, 263; VI, 313; VII, 231, 877; VIII, 418; XI, 263, 272; XII, 69, 294, 599, 861.

bread, analyses, Rec. VIII, 152.

carrot. (See CARROT, GIANT.)

chestnut— (See also ÆSCULUS.)

- and its allies, Rec. IX, 452.
- disease caused by *Phyllosticta sphaeropsoides*, Rec. X, 260.
- feeding value, Rec. V, 439.
- leaf blight, notes, Rec. VI, 556.
- notes, Rec. IV, 654; VIII, 231.
- nutritive value, Rec. VIII, 513.
- spraying for *Phyllosticta sphaeropsoides*, Rec. XI, 753.
- red and white flowered, notes, Rec. VII, 134.

external—

- and internal organization, Rec. IX, 1080.
- conformation, Rec. VII, 986.
- conformation in relation to selection, Rec. V, 688.

feeds, analyses, Rec. VI, 163; VII, 336; XII, 282.

flesh—

- analyses, Rec. XII, 107.
- as food, Rec. VII, 803, 985; IX, 980.
- determination of glycogen in, Rec. XII, 107.
- heat of combustion, Rec. XII, 178.
- in foods, detection, Rec. IV, 694; V, 540; XI, 21.

fly, common, notes, Rec. VIII, 418.

food, analyses, Rec. VIII, 1004.

gram, notes, Rec. V, 820, 908; VII, 954.

hygiene of, Rec. X, 83.

manure—

- analyses, Rec. III, 315; V, 164.
- fermentation, generation of free nitrogen in, Rec. V, 651.

Horse—Continued.

- manure—continued.
 - fertilizing constituents, *Rec. V*, 143
 - nitrogen in, *Rec. V*, 142.
 - value, *Rec. III*, 91.
- meat. (*See HORSEFLESH.*)
- nettle—
 - eradication, *Rec. VIII*, 498; *IX*, 142; *XI*, 749.
 - notes, *Rec. III*, 217, 893; *V*, 306; *VI*, 551, 732; *VII*, 135, 689; *VIII*, 498, 866; *XI*, 354, 651.
 - root system, *Rec. IV*, 46, 47.
- Norwegian, *Rec. VII*, 708.
- old Nordland, *Rec. IX*, 983.
- pox, notes, *Rec. XII*, 488.
- radish—
 - core rot, notes, *Rec. XI*, 362.
 - culture, *Rec. V*, 1099; *VI*, 727; *IX*, 357; *X*, 151; *XII*, 558.
 - culture in Bohemia, *Rec. XI*, 1047.
 - European varieties and culture, *Rec. XII*, 1044.
 - flea-beetle, *Rec. X*, 61.
 - leaf disease, *Rec. X*, 260.
 - leaf spot, notes, *Rec. III*, 307.
 - notes, *Rec. IX*, 143.
 - white rust, *Rec. XI*, 758.
 - wild, notes, *Rec. VI*, 819.
- raising—
 - importance for farmer and the army, *Rec. IX*, 983.
 - in Argentina, *Rec. X*, 282.
 - Denmark, *Rec. VII*, 249; *IX*, 88; *X*, 781.
 - the Pacific Northwest, *Rec. XII*, 380.
- rôle of posterior members in locomotion, *Rec. VII*, 986.
- show at Chicago in 1890, *Rec. III*, 729.
- sickness—
 - African, notes, *Rec. XII*, 595, 685.
 - nature, *Rec. XII*, 893.
 - pathogenic organism, *Rec. XII*, 792.
- sorrel, analyses, *Rec. III*, 296.
- stalls, temperature, *Rec. VII*, 616.
- teeth of, *Rec. VI*, 666, 934.
- topographical anatomy, *Rec. X*, 194.

Horses—

- actinomycosis, *Rec. X*, 496.
- American, in foreign countries, *Rec. XI*, 75.
- anatomy, *Rec. IX*, 594.
- ankylosis, *Rec. X*, 896.
- and cattle in their relation to climate, *Rec. V*, 655.
- anemia, *Rec. VII*, 712.
- ankylostomiasis, *Rec. X*, 497.
- aphtha, *Rec. X*, 497.
- barley *v.* oats for, *Rec. VIII*, 822; *XI*, 80.
- beet-sugar molasses for, *Rec. VII*, 701.
- big head, *Rec. II*, 168; *V*, 79.
- big head, causes and treatment, *Rec. VII*, 64.
- blanketing *v.* not blanketing, *Rec. III*, 806.
- blood-molasses feed for, *Rec. IX*, 980; *XI*, 880.
- Borna disease, *Rec. XI*, 588; *XII*, 793.
- bottom disease, *Rec. V*, 608.
- bran *v.* oats for, *Rec. V*, 540.
- breeding, *Rec. VII*, 986; *IX*, 276; *XI*, 673.
- breeding—
 - ancient and modern, *Rec. IX*, 276.
 - Belgium draft, *Rec. VIII*, 427.

Horses—Continued.

- breeding—continued.
 - for the German military service, *Rec. XI*, 972.
 - in Austria-Hungary, *Rec. X*, 83.
 - Germany, *Rec. V*, 823.
 - Hungary, Government aid to, *Rec. V*, 656.
 - New Jersey, *Rec. III*, 729.
- breeds, *Rec. IX*, 176.
- breeds, classification, *Rec. IV*, 574.
- brewers' grains—
 - for, *Rec. III*, 750.
 - v.* oats for, *Rec. IV*, 742; *V*, 540.
- care, *Rec. XI*, 184.
- cerebritis, *Rec. V*, 203.
- cerebritis, enzootic, *Rec. III*, 388.
- cerebro-spinal—
 - disease, *Rec. X*, 896.
 - meningitis in, *Rec. V*, 603; *VI*, 843; *VIII*, 524; *X*, 394, 896; *XI*, 697; *XII*, 290.
- charcoal for indigestion, *Rec. X*, 794.
- cockle seed not injurious to, *Rec. V*, 813.
- colic—
 - cause, *Rec. I*, 139; *V*, 78; *VIII*, 84.
 - remedies, *Rec. XI*, 191.
 - studies, *Rec. XI*, 394.
 - treatment, *Rec. I*, 139; *V*, 78; *VIII*, 84.
- collar galls, *Rec. III*, 244.
- condition, *Rec. III*, 813.
- corn for, *Rec. V*, 328; *VI*, 162, 242.
- corn *v.* oats for, *Rec. VI*, 751.
- cotton-seed meal for, *Rec. VI*, 921.
- cut *v.* whole hay for, *Rec. IV*, 71.
- development, *Rec. X*, 83.
- digestion experiments, *Rec. VII*, 610; *X*, 75, 379, 1083; *XII*, 666.
- disease due to—
 - bad ventilation, *Rec. XII*, 194.
 - moldy corn, *Rec. III*, 389.
- disease caused by grama grass, *Rec. XI*, 1090.
- diseases, *Rec. II*, 519; *IV*, 75; *V*, 203.
- diseases, manual, *Rec. XI*, 93.
- disembittered lupines for, *Rec. VI*, 163.
- distemper, *Rec. VIII*, 625; *XI*, 495.
- dourine, *Rec. XII*, 893.
- duration of life and usefulness, *Rec. X*, 781.
- effect of—
 - serum injections for lung diseases, *Rec. IX*, 187.
- sex on susceptibility to disease, *Rec. XI*, 896.
- somnificants, *Rec. XII*, 887.
- energy expended, measurement, *Rec. IX*, 597.
- energy of motion, *Rec. XII*, 478.
- epizootic—
 - lymphangitis, *Rec. VII*, 712.
 - pleuro-pneumonia, notes, *Rec. XI*, 896.
- ergotism, *Rec. XII*, 891.
- faulty appetite, *Rec. III*, 244.
- feeding, *Rec. VIII*, 157; *XII*, 4.
- feeding—
 - and watering, *Rec. X*, 184.
 - experiments, *Rec. IV*, 71, 742; *V*, 77, 411; *VI*, 330, 841, 921, 1018; *VII*, 247, 801; *VIII*, 152, 818; *IX*, 174; *X*, 772, 778; *XI*, 74, 80, 183, 880, 1069; *XII*, 978.
 - for light and heavy work, *Rec. XII*, 677.
 - in Argentina, *Rec. XI*, 577.

Horses—Continued.

- foot evil, *Rec. IV*, 75.
- forage poisoning, *Rec. XII*, 886.
- founder, treatment, *Rec. VIII*, 625.
- glanders. (*See GLANDERS.*)
- hay and grain mixed for, *Rec. IV*, 71.
- health as affected by improper feeding, *Rec. III*, 152.
- heaves in, remedies, *Bul. 2, I*, 105.
- hen flea on, *Rec. VI*, 740.
- heredity in, *Rec. VI*, 931.
- heredity of color in, *Rec. IX*, 593.
- hernia, diaphragmatic in, *Rec. XI*, 191.
- herpes in, *Rec. X*, 497.
- hoofs, material for packing, *Rec. XII*, 96.
- horn fly on, *Rec. VI*, 440, 564, 740.
- importation into Great Britain, *Rec. XI*, 999.
- infectious brain fever, *Rec. VII*, 712.
- influenza, treatment, *Rec. VIII*, 1016.
- iritis in, notes, *Rec. XI*, 896.
- kola, food value of, *Rec. X*, 181.
- lameness, *Rec. II*, 519.
- lameness, treatment, *Rec. VII*, 65; *VIII*, 159.
- lockjaw, treatment, *Rec. VIII*, 523.
- maladie du coit, in Nebraska, *Rec. V*, 608.
- malaria of, *Rec. XII*, 792.
- malarial fever, *Rec. XI*, 290.
- management, *Rec. XI*, 972.
- manure—
 - amount, *Rec. VI*, 127.
 - analyses, *Rec. V*, 164, 389.
- fermentation, *Rec. V*, 651.
- meat, ground, *v.* oats for, *Rec. V*, 540.
- metabolism, *Rec. V*, 822; *XII*, 781.
- metabolism experiments, *Rec. VIII*, 156; *X*, 76, 496, 1083; *XI*, 72.
- methods of administering medicine, *Rec. II*, 519.
- millet—
 - disease, *Rec. IX*, 899.
 - for, *Rec. IX*, 174.
- molasses for, *Rec. VIII*, 1014; *XI*, 74.
- narrow *v.* wide rations for, *Rec. VI*, 240.
- native Russian races, *Rec. XI*, 779.
- natural recovery from glanders, *Rec. XI*, 895.
- nitrogen excreted by, *Rec. V*, 142.
- oat straw for, *Rec. VII*, 802.
- oats *v.* bran—
 - and ground wheat for, *Rec. VII*, 802.
 - shorts for, *Rec. VII*, 802.
 - for, *Rec. V*, 540.
- oats *v.* horse bread for, *Rec. VII*, 247.
- of Hungary, *Rec. XI*, 381.
- South Africa, *Rec. XII*, 792.
- phosphoric acid excreted by, *Rec. V*, 142.
- poisoning by—
 - forage, *Rec. XII*, 886.
 - golden rod, *Rec. VII*, 618.
 - lead, *Rec. XI*, 191.
 - loco, *Rec. II*, 395.
 - spoiled potatoes, *Rec. IX*, 390.
- potash excreted by, *Rec. V*, 142.
- potatoes for, *Rec. V*, 540, 813.
- purgatives, experiments with, *Rec. II*, 395.
- qualities desired in, *Rec. VI*, 242.
- rheumatism in, *Rec. IV*, 749.
- Russian barley for, *Rec. V*, 626.
- silage for, *Rec. XI*, 183, 599.

Horses—Continued.

- size and weight, *Rec. IX*, 983.
- staggers, *Rec. III*, 42, 388.
- skin tumors, studies, *Rec. VIII*, 928.
- statistics, *Rec. II*, 518; *III*, 201; *V*, 799.
- strangles, studies, *Rec. XII*, 292.
- systematic feeding as a preventive of diseases, *Rec. X*, 694.
- tapeworms parasitic in, *Rec. XII*, 893.
- temperature of healthy, *Rec. II*, 395.
- translucent tubercles in lungs, *Rec. VIII*, 159.
- tuberculin test, *Rec. XI*, 795.
- tuberculosis, *Rec. X*, 495, 694, 896; *XI*, 393, 794; *XII*, 490, 793, 992.
- type characteristics, *Rec. IV*, 574.
- typhoid affections, *Rec. X*, 192.
- watering, *Rec. III*, 270, 470.
- wheat, bran, and shorts for, *Rec. VII*, 802.
- wheat bean for, *Rec. V*, 389.
- whole *v.* ground grain for, *Rec. III*, 470.
- work, maintenance, *Rec. VII*, 986; *XI*, 673.
- worm diseases, *Rec. XI*, 191.
- wounds and their treatment, *Rec. II*, 519.

Horseshoe—

- for moor soils, *Rec. VII*, 431.
- history, *Rec. IV*, 989.

Horseshoeing, *Rec. II*, 519; *VIII*, 525; *XII*, 194.

Horseshoeing—

- principles, *Rec. VIII*, 159.
- rational, *Rec. IX*, 294.

Horseshoes, nailless, *Rec. XI*, 291.

Horsetail—

- analyses, *Rec. IV*, 972.
- rushes, *Rec. V*, 720.

Horseweed—

- analyses, *Rec. IX*, 1024.
- notes, *Rec. III*, 308; *XI*, 354.
- root system, *Rec. IV*, 47.

Hortensia vulgare, germination and growth in rarified air, *Rec. XII*, 909.

Horticultural—

- and botanical classification of cherries, *Rec. VII*, 398.
- directory and yearbook for 1898, *Rec. X*, 49.
- education in Minnesota, *Rec. IX*, 319.
- experiment stations, *Rec. XI*, 198.
- implements, notes, *Rec. II*, 607.
- investigation from a botanical standpoint, *Rec. VII*, 584.
- legislation in British Columbia, *Rec. VI*, 917.
- lessons from Columbian Exposition, *Rec. VI*, 993.
- nomenclature, notes, *Rec. X*, 354.
- periodicals, indexes, *Rec. XI*, 650.
- School, National, at Versailles (France), *Rec. VI*, 222.
- schools, *Rec. IV*, 330; *VII*, 560; *IX*, 651; *XI*, 900.
- section of the Association of Colleges and Stations, *Rec. II*, 267.
- Society of Massachusetts, *Rec. V*, 449.
- "sports," *Rec. VI*, 300.
- work—
 - at experimental farm for British Columbia, *Rec. IX*, 841.
 - Indian Head, Northwest Territories, *Rec. IX*, 840.
 - New Jersey Stations, *Rec. X*, 433.

Horticultural—Continued.
work—continued.

- at New York State Station, Rec. VIII, 602.
- North Carolina Station, Rec. IV, 729.
- San Joaquin Valley Station, Rec. VIII, 701.
- Southern California Substation, Rec. X, 254.
- Southern Pines, Rec. VIII, 693; IX, 358.
- Wisconsin Station, Rec. VII, 583.
- in Manitoba, Rec. IX, 840.
- method of keeping records, Rec. IX, 297, 318.
- of the stations, suggestions regarding, Rec. II, 625.

Horticulture—

- and Agriculture, School of Applied, Rec. XI, 900.
- climatology, interrelations, Rec. VI, 507.
- forestry in Sweden, Denmark, Germany, and Austria, Rec. X, 757.
- gardening, dictionary, Rec. VII, 309.
- as related to selection, Rec. X, 153.
- at Alabama College Station, Rec. IX, 247.
- Cornell University, Rec. VII, 506.
- Mississippi Station, Rec. VIII, 497.
- West Virginia Station, Rec. IX, 950.
- chemistry in, Rec. IX, 451.
- educational aspect, Rec. XII, 952.
- electricity in, Rec. VI, 222.
- experimental, Rec. VIII, 556, 602.
- experimental problems, Rec. IX, 644.
- extension work in, Rec. VIII, 135, 790; IX, 949.
- from a climatic standpoint, Rec. VI, 993.
- in America, history, Rec. VII, 130.
- Belgium, Rec. V, 129; XI, 351.
- colleges, Rec. VIII, 792.
- connection with agriculture, Rec. VII, 688.
- eastern Nebraska, Rec. VII, 587.
- England, Rec. IX, 247.
- Europe, Rec. X, 853.
- Germany and Austria, Rec. IX, 949.
- Japan, Rec. X, 1044.
- Jutland, Rec. VII, 776.
- Manitoba, Rec. X, 853.
- maritime provinces, Rec. VII, 587.
- Northwest Territories, Rec. X, 853.
- Norway, Rec. VII, 960.
- Oregon, Rec. VII, 770.
- Russia, Rec. IX, 754; XI, 744.
- southern Germany, Rec. IX, 651.
- the five divisions of the world, Rec. VIII, 497; IX, 449.
- International Congress at Paris, Rec. XII, 205.
- laboratory—
 - methods in, Rec. VIII, 556.
 - work, Rec. IX, 297.
- nomenclature, Rec. XI, 851.
- notes, Rec. XI, 397.
- races, pedigree, or grade, Rec. V, 449.
- relation of selection, Rec. X, 354.
- school at Florence, Italy, Rec. IV, 330.
- studies, Rec. VIII, 497.
- suggestions for experiments, Rec. IX, 644.
- teaching of, Rec. VII, 173; VIII, 537.
- text-book, Rec. VI, 56.

Horticulture—Continued.

- treatise, Rec. IX, 755.
- use of fertilizers, Rec. X, 353.
- Horticulturist of the Royal Agricultural College of Sweden, report, Rec. VII, 504.
- Horticulturists—
 - bird notes for, Rec. IV, 876.
 - education, Rec. X, 151.
 - rule book, Rec. VII, 131.
 - station duties, Rec. VII, 174; VIII, 537.
- Hosackia*—
 - glabra*, notes, Rec. VIII, 306.
 - purshiana*, notes, Rec. VI, 404; VIII, 306.
- Hose, spraying, coupling for, Rec. V, 926.
- Hospital—
 - diet, Rec. VII, 803.
 - dietaries, Rec. VIII, 81.
- Host—
 - and parasite, relation between, in diseases of plants, Rec. III, 811.
 - index, provisional, of the fungi of the United States, Rec. III, 810.
 - plants—
 - as affected by parasitic fungi, Rec. IV, 967.
 - effect on parasitic fungi, Rec. IV, 872.
 - of Uredineæ, Rec. V, 1030.
- Hostile leaf hopper, Rec. VIII, 505.
- Hostetter's Stomach Bitters, analyses, Rec. II, 666.
- Hosts as affected by ticks, Rec. VI, 653.
- Hot—
 - air—
 - for drying, Rec. VII, 92.
 - treatment for stinking smut of wheat, Rec. VII, 874.
 - iron test in cheese making, Rec. VIII, 729.
 - springs, bacteria of, Rec. V, 650.
 - water—
 - as an insecticide, Rec. V, 593; VII, 968.
 - effect on germination of seeds, Rec. VI, 904.
 - effect on vitality of seed corn, Rec. IV, 472.
 - effect on vitality of wheat, Rec. II, 325.
 - for barley smut, Rec. VI, 310; VII, 787; VIII, 240; X, 156, 633, 740.
 - bean anthracnose, Rec. IV, 558.
 - brome grass rust, Rec. VII, 224.
 - cabbage worms, Rec. II, 323.
 - celery caterpillars, Rec. V, 686.
 - corn smut, Rec. III, 787.
 - grain smuts, Rec. IV, 50, 251, 341, 352, 415, 729; VI, 309, 1000; VII, 512, 964; VIII, 318.
 - grape mildew, Rec. XI, 165, 947.
 - grape phylloxera, Rec. XI, 959.
 - heating greenhouses, Rec. VIII, 984.
 - millet smut, Rec. VIII, 706.
 - oat smut, Rec. I, 216; II, 640; III, 226, 286, 791, 806, 892; VI, 308, 310, 557, 559; VII, 589; VIII, 44, 606; IX, 145, 1060; XI, 944.
 - potato scab, Rec. III, 619.
 - rose chafers, Rec. III, 171, 291; V, 686.
 - smut in cereals, Rec. II, 221, 325, 342, 637, 740; V, 59, 61, 308, 685, 1072.
 - sorghum smut, Rec. III, 287.
 - sugar-beet seed, Rec. VII, 872.
 - wheat smut, Rec. III, 243; VII, 140, 589; VIII, 240; IX, 639; X, 267, 559, 633.

- Hot—Continued.
 water—continued.
 use of different temperatures, *Rec. XI*, 478.
 v. steam for greenhouse heating, *Rec. I*, 82, 225; *IV*, 348; *V*, 295; *VI*, 424; *VII*, 400, 585.
 weather of August, 1900, *Rec. XII*, 831.
 winds—
 in Missouri and Kansas, *Rec. IX*, 424.
 summer, of the Great Plains, *Rec. V*, 1035.
- Hotbed frame, new, *Rec. VI*, 299.
- Hotbeds—
 and cold frames, construction and use, *Rec. X*, 148.
 their uses, *Rec. VII*, 585.
 construction, *Rec. XI*, 351.
- Hothouse plants, injury by *Protococcus caldari-orum*, *Rec. VII*, 513.
- Hothouses, fruit forcing in, *Rec. VI*, 729.
- Hottentot bug, notes, *Rec. XII*, 664.
- Houdart's apparatus for pasteurizing wines, *Rec. V*, 215.
- Hound's tongue—
 notes, *Rec. V*, 398; *IX*, 453, 758.
 root system, *Rec. IV*, 46.
- House—
 and street sweepings as a fertilizer, *Rec. IV*, 222, 518.
 ants, remedies, *Rec. IX*, 65.
 cricket—
 evolution of coelomic gregarines, *Rec. IX*, 467.
 notes, *Rec. IX*, 63.
 crab spider destroying flies, *Rec. X*, 570.
 flea, notes, *Rec. IX*, 254.
 flies. (*See* FLIES.)
 plants—
 fertilization, *Rec. IX*, 649.
 list, *Rec. II*, 70.
 wren—
 food habits, *Rec. VIII*, 751.
 notes, *Rec. XI*, 428.
- Household—
 economics as a university movement, *Rec. VII*, 891.
 insects, *Rec. XII*, 67.
 insects, temperature effects, *Rec. IX*, 660.
 pests, remedies, *Rec. VII*, 793.
- Houses, country, block system for numbering, *Rec. VI*, 754.
- Houstonia (Ericotia) fruticosa*, n. sp., notes, *Rec. IV*, 374.
- Huasco grape cuttings, distribution, *Rec. III*, 597.
- Hubl's—
 iodin-addition method, *Rec. V*, 253; *VII*, 17, 273.
 method for examining wax, *Rec. IV*, 516.
 reagent, preservation, *Rec. XI*, 510.
- Huckleberries—
 coloring matter, *Rec. VI*, 615.
 notes, *Rec. VI*, 424.
- Hudnuts, analyses, *Rec. XII*, 169.
- Human—
 body, formulas for calculating surface area, *Rec. IX*, 175.
 excrement—
 as a fertilizer, *Rec. VI*, 797; *IX*, 35, 740.
 irrational treatment, *Rec. VI*, 134.
- Human—Continued.
 flea, notes, *Rec. XI*, 263.
 parasite, new, *Rec. VI*, 469.
- Humates—
 alkaline, dialysis, *Rec. IX*, 433.
 and soil fertility, *Rec. XI*, 228.
 percentage in soils, *Rec. XI*, 224.
- Humic acid—
 fixation of phosphates and ammonia salts by, *Rec. IV*, 388.
 from sugar, calorimetric tests, *Rec. III*, 655.
 in peat, nitrogenous products accompanying, *Rec. X*, 424.
 method for phosphates, *Rec. XI*, 1004.
 oxidation, *Rec. III*, 578, 635.
- Humidity—
 as affected by forest area, *Rec. IX*, 248.
 comparison of different localities, *Rec. X*, 524.
 effect on—
 plant growth, *Rec. IV*, 448; *V*, 114.
 transpiration, *Rec. VII*, 926.
 transpiration and development, *Rec. VIII*, 954.
 of atmosphere, *Rec. IX*, 425.
 calcareous soils, influence on development of chlorosis, *Rec. VI*, 233.
 soil, influence on terrestrial plants, *Rec. VII*, 19.
 the air in warm weather, effect on animals, *Rec. IV*, 986.
 vertical gradients, *Rec. XI*, 621.
- Humin, formation from sugar, *Rec. IX*, 418.
- Humus—
 absorptive power, *Rec. VIII*, 385.
 acid—
 determination, *Rec. XII*, 907.
 rôle in nature, *Rec. XII*, 1024.
 acids—
 determination in moor soils, *Rec. IX*, 32.
 determination in peat, *Rec. XII*, 907.
 effect on germination of cereals, *Rec. X*, 645.
 analyses, *Rec. IX*, 632, 633, 635.
 and mineral fertilizers, *Rec. VIII*, 485.
 soil fertility, *Rec. VII*, 477; *VIII*, 679; *XI*, 1099.
 as a food for plants, *Rec. V*, 18.
 affected by lime, *Rec. X*, 1022.
 related to culture of the soil, *Rec. VIII*, 879.
 assimilation by plants, *Rec. VI*, 284; *VII*, 23.
 composition, *Rec. X*, 830.
 content of soils, *Rec. VI*, 197; *X*, 129; *XII*, 732.
 content of soils as affected by—
 fertilizers, *Rec. XII*, 727.
 leaves, *Rec. VII*, 23.
 lime, *Rec. X*, 1022; *XI*, 824; *XII*, 727.
 rotation of crops, *Rec. IX*, 641.
 content of soils, studies, *Rec. XI*, 224.
 decomposition—
 by fungi, *Rec. XII*, 912.
 of mineral salts, *Rec. XI*, 623.
 determination, *Rec. VIII*, 678.
 determination—
 and function of mineral substances in, *Rec. III*, 655.
 in soils, *Rec. V*, 511, 559, 857, 932, 937; *VI*, 118, 691; *VIII*, 678; *XI*, 110; *XII*, 417.
 different forms in agriculture, *Rec. XI*, 916.

Humus—Continued.

effect on—

nitrogen content of oats, *Rec. IX*, 444.
 productiveness of soils, *Rec. VII*, 292, 377.
 retentive power of soils for water, *Rec. V*, 857.

soil fertility, *Rec. V*, 832; *VII*, 292, 377;
VIII, 679, 756, 969; *IX*, 334.

formation as related to lime content of soils,
Rec. IV, 614.

functions, *Rec. V*, 833.

in relation to agriculture, *Rec. XII*, 530.

monograph, *Rec. VII*, 669.

nature, *Rec. IV*, 248.

nature and function of sulphur in, *Rec. III*, 578.

nitrification, *Rec. III*, 655; *IV*, 294.

nitrogen content, *Rec. IX*, 33; *X*, 129.

nitrogenous compounds in, *Rec. III*, 655.

organic constituents, *Rec. IV*, 200, 871, 859; *V*, 819; *X*, 129.

origin, *Rec. VIII*, 756.

oxidation, *Rec. III*, 578, 635.

phosphates in, *Rec. X*, 129.

plants, nutrition by mycorrhiza, *Rec. XII*, 219.

production from manures, *Rec. IX*, 632.

proportion of nitrogen as affecting nitrification, *Rec. III*, 655.

soils—

determination of manganese, *Rec. IX*, 1023.

experiments, *Rec. X*, 728; *XII*, 32, 36.

improvement, *Rec. IX*, 733, 1038.

studies, *Rec. XI*, 1022.

substances of soils, *Rec. III*, 119, 655.

Hungarian—

and millet hay, analyses, *Rec. IX*, 786.

fodder, digestibility, *Rec. VIII*, 423.

grass—

analyses, *Rec. V*, 596; *VI*, 274; *VII*, 296;
VIII, 426; *IX*, 873.

and alfalfa silage, loss in preparation,
Rec. V, 52.

culture experiments, *Bul. 2, I*, 190; *Rec. VI*, 532.

culture for soiling, *Rec. IV*, 29.

digestibility, *Rec. IV*, 569.

fertilizer experiments, *Rec. VI*, 405.

for pigs, *Rec. III*, 392.

soiling, *Rec. IV*, 480.

for cows, *Rec. II*, 667.

grain smut, studies, *Rec. XII*, 357.

green, analyses, *Rec. V*, 194.

hay, analyses, *Rec. VI*, 444; *VIII*, 426, 810;
XI, 882.

notes, *Rec. VI*, 714.

silage, analyses, *Rec. II*, 666.

yield and food value per acre, *Rec. IV*, 568.

National Millennium Exposition, *Rec. VIII*, 1.

Hungary, Agricultural Commission, *Rec. IX*, 600.

Hurrah grass, notes, *Rec. X*, 343.

Hurricane—

at St. Kitts, West Indies, *Rec. XI*, 621.

Porto Rican, *Rec. XII*, 1015.

service of West Indies, *Rec. XI*, 126.

tracks in the North Atlantic, recurving, *Rec. XI*, 819.

Hurricanes—

and typhoons, origin, *Rec. VIII*, 676.

at Charleston, *Rec. XII*, 1015.

destructive forces, *Rec. VIII*, 475.

in Jamaica, *Rec. XII*, 1016.

the Philippines, *Rec. XII*, 119.

the West Indies, *Rec. IX*, 814; *X*, 327; *XII*, 920.

notes, *Rec. XI*, 432.

Hurtful leaf hopper, notes, *Rec. III*, 218.

Husbandry, American system, *Rec. V*, 656.

Husk—

in calves, etiology and treatment, *Rec. XII*, 395.

tomatoes, notes, *Rec. III*, 617.

Hyacinths—

bacterial disease, *Rec. IX*, 457.

bacteriosis, *Rec. VIII*, 607.

propagation, *Rec. IX*, 951.

Hyaloides vitripennis, notes, *Rec. III*, 42.

Hyalomma aegyptius, notes, *Rec. XII*, 861.

Hyalopterus pruni, notes, *Rec. IX*, 1065; *X*, 65, 467.

Hybernica—

defoliaria, notes, *Rec. VI*, 442; *VII*, 307; *VIII*, 909.

tiliaria, notes, *Rec. IV*, 416; *VI*, 740; *IX*, 858; *X*, 167; *XII*, 68.

Hyblaea puera, notes, *Rec. XI*, 1063.

Hybrid—

Baptisia, *Rec. V*, 741.

birches, *Rec. VII*, 135.

cherry, notes, *Rec. VI*, 421.

cinerarias, *Rec. IX*, 358.

coffee, notes, *Rec. XI*, 240, 449, 452.

new bigeneric, *Rec. IX*, 813.

oaks, *Rec. VII*, 36.

orchids, *Rec. XI*, 52, 549.

plums, *Rec. XI*, 47, 352.

walnut trees, notes, *Rec. VI*, 427.

Hybridity, evidences, *Rec. XI*, 47.

Hybridization— (*See also* PLANT BREEDING;
 CROSS FERTILIZATION, etc.)

and cross breeding, *Rec. XII*, 612, 852.

artificial, *Rec. IV*, 448.

essays, *Rec. XI*, 152.

for prevention of plant disease, *Rec. X*, 457.

in the United States, *Rec. XII*, 613.

limits among orchids, *Rec. XI*, 52.

notes, *Rec. XII*, 612.

of monstrosities, *Rec. XII*, 612.

plants, work of U. S. Department of Agriculture, *Rec. XII*, 612.

principles, *Rec. XI*, 453; *XII*, 613.

without crossing, study, *Rec. VI*, 507.

Hybridizing—

fruits, *Rec. IX*, 649; *X*, 252.

gamecocks, *Rec. IX*, 1031.

grapes, *Rec. IX*, 842; *X*, 150.

Guinea fowls, *Rec. IX*, 1031.

notes, *Rec. XI*, 1016; *XII*, 612, 752.

ornamental plants, *Rec. X*, 252.

orchids, *Rec. IX*, 140.

roses, *Rec. VIII*, 55.

Hybrids—

caryophyllaceous, *Rec. X*, 519.

classification, *Rec. XI*, 48.

disordinate variation, *Rec. XI*, 27.

Hybrids—Continued.

- grape, old and new, *Rec. VI*, 300.
- in classification of American grapes, *Rec. VI*, 266.
- replanting vineyards, *Rec. VI*, 729.
- the restoration of vineyards, *Rec. VII*, 308.
- influence of each parent, *Rec. XII*, 613.
- new—
 - from *Rosa wichuraiana*, *Rec. X*, 153.
 - structure, *Rec. XII*, 612.
- notes, *Rec. XII*, 613.
- rose, *Rec. V*, 985.
- spontaneous—
 - in European flora, *Rec. XI*, 120.
 - of hardy plants, *Rec. XI*, 249.
- utilization in plant breeding, *Rec. X*, 516.

Hydroids in sheep, *Rec. II*, 79.*Hydnocera scabra*, notes, *Rec. III*, 812.*Hydnocystis convoluta*, notes, *Rec. VII*, 748.*Hydnum*—

- chrysocomum*, notes, *Rec. VIII*, 671.
- imbricatum*, notes, *Rec. X*, 551.
- repandum*, notes, *Rec. X*, 551.

Hydrangea—

- blight, notes, *Rec. IV*, 54.
- diseases, notes, *Rec. IV*, 53.
- large panicle, *Rec. VIII*, 314.
- notes, *Rec. III*, 788; *V*, 790.
- summer propagation, *Rec. III*, 230.

Hydrangea paniculata grandiflora, notes, *Rec. IV*, 655; *VIII*, 314.

Hydrangeas, color as affected by—

- minerals, *Rec. IX*, 247.
- soils, *Rec. VIII*, 890; *IX*, 330.

Hydrated phosphates of iron and alumina, treatment for fertilizer, *Rec. V*, 436.

Hydraulic—

- agriculture, *Rec. XII*, 898.
- cement for peach borers, *Rec. X*, 657.
- rams for irrigation, *Rec. VII*, 531.

Hydraulics, agricultural, treatise, *Rec. XII*, 696.*Hydria undulata*, notes, *Rec. II*, 420.Hydrobatid water bug, n. sp., notes, *Rec. III*, 548.*Hydrocampa cannalis*, notes, *Rec. X*, 658.Hydrocarbons, excretion by oxen as affected by food, *Rec. V*, 1032.*Hydrochelidon nigra surinamensis*, notes, *Bul. 2*, II, 93.

Hydrochloric acid—

- a soil solvent, *Rec. VI*, 792.
- absorption of atmospheric ammonia by, *Rec. VII*, 661.
- dilute, action on albuminoids, *Rec. IV*, 87.
- effect on—
 - arabinose, *Rec. VIII*, 377.
 - assimilation of plants, *Rec. XII*, 912.
- for determination of pentoses and pentosans, *Rec. VII*, 830, 831, 832.
- potato blight, *Rec. VIII*, 141.
- potato scab, *Rec. III*, 619.
- red scale, *Rec. II*, 80.
- souring cream, *Rec. VI*, 248, 672.
- free, separation from chlorids, *Rec. VI*, 775.
- gas, apparatus for generation, *Rec. XII*, 908.
- in contents of the stomach, *Rec. VII*, 557.
- solution, determination of iron, *Rec. XI*, 213.
- use in drying fermentable substances, *Rec. V*, 28.

Hydrocyanic acid—

- effect on colors of flowers, *Rec. VII*, 506.
- for fumigating fruit, *Rec. X*, 771.
- gas—
 - as an insecticide, *Rec. V*, 517; *VI*, 1006; *VII*, 882; *X*, 64, 470; *XI*, 64; *XII*, 861.
 - effect on germination, *Rec. XII*, 959.
 - effect on insects, *Rec. V*, 593.
 - effect on plants, *Rec. XI*, 1009, 1100.
 - effect on strawberries, *Rec. XII*, 775.
 - for fumigation of greenhouses, *Rec. VIII*, 712; *IX*, 471; *X*, 771, 1075.
 - for insects in greenhouses, *Rec. XII*, 162.
 - orange trees, *Rec. VII*, 793.
 - San José scale, *Rec. VI*, 440; *IX*, 155; *X*, 160, 868, 1059.
 - scale insects, *Rec. III*, 54, 183.
 - scale insects of the orange, *Rec. XI*, 372.
- fumigation, *Rec. XII*, 662.
- fumigation experiments, *Rec. XII*, 870, 1058.
- handling in orchards, *Rec. XI*, 951.
- injury to plants, *Rec. XII*, 613.
- patent, *Rec. VI*, 740.
- preparation and use, *Rec. VI*, 741; *VII*, 593.
- i. plants, *Rec. X*, 223, 929; *XI*, 121, 320; *XII*, 518.
- seeds of Vicia, *Rec. XI*, 748.
- production in seeds, *Rec. IX*, 525.

Hydrocyanic acids in seeds of certain Pomaceæ, *Rec. VIII*, 989.Hydrodynamics, equations, *Rec. IX*, 533, 814.*Hydræcia*—

- immanis*, notes, *Rec. V*, 630; *IX*, 668.
- marginidens*, notes, *Rec. X*, 66.
- misasæa*—
 - notes, *Rec. V*, 912.
 - on the potato in Germany, *Rec. V*, 654.
- nitela*, notes, *Rec. IV*, 839.
- purpurifacia*, notes, *Rec. IX*, 260.

Hydræcia, revision of genus, *Rec. XI*, 371.

Hydrofluoric acid—

- in the manufacture of alcohol, *Rec. III*, 211.
- pure, *Rec. VIII*, 105.

Hydrogen—

- and methane in the atmosphere, *Rec. VII*, 290.
- apparatus for—
 - drying in, *Rec. I*, 278; *II*, 482; *V*, 385.
 - generating, *Rec. II*, 482.
- bath description, *Rec. V*, 278.
- determination, *Rec. XII*, 20.
- determination in nitrogenous organic substances, *Rec. XI*, 311.
- excretion by plants, *Rec. V*, 923.
- generator, *Rec. X*, 21.
- generator—
 - description, *Rec. V*, 278.
 - new form, *Rec. IX*, 621.
- peroxid—
 - chemical dynamics, *Rec. XI*, 706.
 - decomposition, *Rec. IX*, 25.
 - effect on ripening of cheese, *Rec. V*, 208, 1062.
 - for analysis of food stuffs, *Rec. IX*, 619.

Hydrogen—Continued.

peroxid—continued.

for determination of formaldehyde, Rec.

XI, 419.

sterilizing milk, Rec. II, 532.

testing pasteurized milk, Rec. X, 384.

in green plants, determination, Rec. VI,
615; VII, 655.

new reaction, Rec. VII, 18.

of the atmosphere, Rec. VI, 14.

sulphid—

apparatus, new, Rec. VI, 273.

generator, Rec. V, 538; VI, 504; XI, 214.

new method of preparation, Rec. IX, 323.

Hydrography—

of Allegany County, Md., Rec. XII, 1096.

Lake Minnetonka watershed, Rec. XI, 221.

Maryland, Rec. XII, 1098.

Nicaragua, Rec. XII, 797, 831.

Porto Rico, Rec. XII, 795.

Hydrological, Climatological, and Geological
Conference, at Clermont, Ferrand, Interna-
tional, Rec. VIII, 476, 676.

Hydrolysis—

of cellulose by acids, Rec. XI, 20.

melezitose by soluble ferments, Rec. VIII,
285.raffinose by soluble ferments, Rec. VIII,
456.

starch, Rec. IX, 22, 418.

wood gum with hydrochloric acid, Rec.
IV, 516.

Hydromel—

and fermentation products of honey, Rec.
VIII, 719.

fermentation, Rec. XII, 694.

preparation, Rec. IX, 73, 696, 1095.

Hydrometer, Baume's, American standard, Rec.
XI, 22.*Hydromyza livens*, notes, Rec. VII, 699.

Hydronaphthol as an antiseptic, Rec. IV, 74.

Hydrophilus piceus, breathing, Rec. XII, 69.

Hydrophobia. (See RABIES.)

Hydrostatic balance, Satorius's new form, Rec.
V, 51.Hydrotechnical works near Siberian railway,
Rec. X, 397.

Hydrotherapy for domestic animals, Rec. XI, 495.

Hydroxids, alkaline, determination, Rec. IX, 26.

Hygiene—

and sanitation, manual, Rec. X, 584.

handbook, Rec. XI, 1007.

in relations to manures, Rec. XI, 32.

the production of milk, Rec. VIII, 347.

manual, Rec. XII, 877.

of cattle, Rec. XI, 592.

domestic animals, Rec. VIII, 159, 928.

domestic animals in milk production, Rec.
VII, 804.

the horse, Rec. X, 83.

veterinary, Rec. VIII, 928.

Hygienic—

and Agricultural Laboratory, Courtroi, Bel-
gium, Rec. V, 555.Institute on Food Control in Hamburg, re-
port, Rec. IX, 991.

Hygrometer—

crude, Rec. X, 1018.

for cheese cellars, Rec. IV, 223.

observations, Rec. II, 653; IV, 119; V, 29.

use in cheese curing, Rec. V, 214.

Hygrometers—

for dairies, Rec. XI, 689.

in greenhouses, Rec. XI, 937.

Hygrometric observations, Rec. XI, 127.

Hygrometry—

bibliography, Rec. XII, 920.

methods, Rec. X, 1030.

Hygrophorus pudorinus, notes, Rec. IX, 960.Hygroscope for determining the opening and
closing of stomata, Rec. XI, 114.*Hylastes*— (See also HYLESINUS.)*ater*, notes, Rec. VII, 231; IX, 470.*crenatus*, notes, Rec. IX, 470.*frazini*, notes, Rec. IX, 470.*obscurus*, notes, Rec. VI, 648; IX, 470; XII,
576.*opacus*, notes, Rec. VII, 231.*palliatius*, notes, Rec. IX, 470.*trifolii*—

injuries by, Rec. XI, 564.

notes, Bul. 2, II, 118; Rec. III, 97; IV,
437; VI, 65; VIII, 505; IX, 855.*Hylesinus*—*crenatus*, notes, Rec. XI, 477.*frazini*, notes, Rec. XI, 474, 476.*henscheli*, n. sp., notes, Rec. X, 168.*minor*, notes, Rec. VIII, 417.*oleiperda*, notes, Rec. XI, 474, 476.*opaculus*, notes, Rec. XII, 158.*palliatius*, notes, Rec. VIII, 711.*piniperda*, notes, Rec. VIII, 417, 711, 911.*porcatus*, notes, Rec. XI, 173.*sericeus*, notes, Rec. VI, 740.*trifolii*, notes, Rec. X, 164.*Hyllobius abietis*, notes, Rec. VII, 700; IX, 575.*Hylotoma victorina*, notes, Rec. XII, 465.*Hylurgus piniperda*, notes, Rec. VIII, 909; IX, 470;
X, 65.*Hymenatherum anomalum*, notes, Rec. III, 103.

Hymenocallis, varieties, Rec. IX, 842.

Hymenomyces—

culture experiments, Rec. IX, 148.

descriptive notes, Rec. VII, 94.

new species, Rec. VIII, 867.

notes, Rec. VIII, 470.

nuclear division of, Rec. V, 650.

revision of species, Rec. IX, 921.

studies, Rec. IX, 362.

study of a species, Rec. V, 1100.

Hymenoptera—

aculeate, literature in nineteenth century,
Rec. XII, 972.

anatomy of digestive tube, Rec. VI, 151.

Canadian, Rec. VII, 792.

head formation, Rec. X, 976.

injurious, treatise, Rec. XII, 868.

new species, Rec. VII, 315; IX, 372, 467.

notes, Rec. XI, 370.

of Australia, Rec. IV, 852.

Italy, Rec. X, 167.

Norway, Rec. XI, 66.

Ohio, Rec. V, 311.

Hymenoptera—Continued.

parasitic—

host relations, Rec. II, 268.

new species, Rec. X, 170.

notes, Rec. II, 179, 258, 455; III, 183, 414; VIII, 70.

of Ceylon, Rec. VIII, 1002.

Vancouver Island, Rec. VIII, 1002.

salivary glands of, Rec. V, 821.

studies, Rec. IX, 774.

systematic and synonymical catalogue, Rec. IX, 467.

tendons and muscles, Rec. IX, 773.

transformation, Rec. VIII, 809.

Hymenopterous—

insects, poison apparatus of, Rec. V, 1100.

larvæ, anatomy of tracheal system, Rec. V, 1031.

parasites of California red scale, Rec. V, 900.

Hyoscyamus sp., notes, Rec. V, 973.*Hyoseris scabra*, notes, Rec. VI, 903.*Hyperba humuli*, notes, Rec. IX, 668.*Hyperba murina* injuring alfalfa, Rec. VIII, 148.*Hyperaspis*—*lateralis*, notes, Rec. VI, 741.*signata*, notes, Rec. VIII, 906; XII, 860.*Hyperchiria io*, notes, Rec. IX, 370.*Hyperetis nyssaria*, notes, Rec. X, 168.*Hypericum*, notes, Rec. X, 552.*Hypericum*—*aureum*, notes, Rec. IV, 655.*kalmianum*, notes, Rec. IV, 655.*perforatum*, root system, Rec. IV, 45.*salicifolia*, notes, Rec. IV, 655.*Hyperplatys*—*asperus*, notes, Rec. II, 333.*maculatus*, notes, Rec. IV, 416.

Hypertrophy in plants, Rec. VIII, 957.

Hyphantria cunea. (See WEBWORM, FALL.)*Hypholoma*—*appendiculatum*, notes, Rec. X, 551.*fasciculare* on raspberry roots, Rec. VIII, 995.

Hyphomycetes, North American, rearrangement, Rec. VIII, 880.

Hynum splendens—

digestibility, Rec. IV, 334.

food value, Rec. IV, 334.

Hypochaeris—*radicata*, notes, Rec. III, 599.

spp., notes, Rec. III, 598.

Hypochlorate of lime for drinking water, Rec. VII, 376.

Hypocotyls in woody plants, Rec. XI, 28.

Hypocreaceæ, revision of species, Rec. VI, 61.

Hypocrea sacchari—a cause of sugar-cane black rot, Rec. VI, 311.
notes, Rec. X, 57.*Hypoderas columbæ*, notes, Rec. IV, 666.

Hypoderma, bibliography, Rec. XII, 867.

Hypoderma—*bovis*. (See HYPODERMA LINEATA.)*lineata*—

larval state, Rec. IX, 158.

life history, Rec. IV, 82.

migration, Rec. III, 501.

notes, Rec. II, 169, 659; III, 860; VII, 44; IX, 674; X, 568; XI, 272.

macrosporum, notes, Rec. VI, 312.

Hypodermic injection—

improved needle, Rec. XI, 896.

syringes, Rec. XII, 95.

Hypomyces—*thiryanus* parasitic on *Lactarius torminosus*, Rec. X, 1057.*vuilleminianus* parasitic on *Lactarius deliciosus*, Rec. X, 1057.*Hyponomeuta*—*eronymella*, notes, Rec. XII, 469.*malinella*—

insect parasite, Rec. XII, 1069.

on apple trees, Rec. XI, 564.

padella, notes, Rec. XII, 469.*padelus*, insect parasite, Rec. XII, 1069.*padi*, notes, Rec. X, 65.*variabilis*, notes, Rec. X, 65.*Hypostomaceæ*, n. gen., notes, Rec. VII, 835.*Hypostomum fichianum*, notes, Rec. VII, 835.

Hyposulphite—

for determination of oxygen in water, Rec. XI, 312.

of soda—

for brown rot of stone fruits, Rec. III, 860.

oat smut, Rec. II, 639.

potato scab, Rec. II, 61.

wheat smut, Rec. II, 221.

Hypoxanthin, investigation, Rec. III, 748.

Hypoxylon, synopsis of species, Rec. I, 169.

Hysiglena texana, n. sp., notes, Rec. V, 90.*Hysterium pinastri*, notes, Rec. XI, 1061.

Hystericidæ, in Idaho, Rec. III, 184.

Hystrix californica, notes, Rec. IV, 951.

Ice—

anchor, Rec. IX, 424.

and navigation at St. Michael, Alaska, Rec. XII, 521.

breaking up at Pierre, S. Dak., Rec. XI, 222.

business and Weather Bureau, Rec. XI, 222.

cream—

centrifugal cream for, Rec. V, 796, 1067.

fruit, notes, Rec. VI, 636.

poisonous bacillus in, Rec. VIII, 933.

crop from a meteorological standpoint, Rec. VII, 474.

crystals on plants, Rec. VI, 195.

drift, Rec. XII, 1015.

formation in plants, Rec. VII, 188, 467.

house *v.* refrigerating machines for creameries, Rec. IX, 1088.

jam in Niagara River, Rec. XI, 222.

in Bering Sea, Rec. XII, 521.

Kennebec River, Rec. IX, 30.

lakes, disappearance, Rec. XII, 119, 831.

measurements, Rec. XI, 127.

preservation by peat, Rec. IX, 594.

storm, Rec. XII, 520.

supply of cities and towns in Massachusetts, Rec. XII, 835.

vapor, pressure for, Rec. XI, 819.

water, analyses, Rec. XI, 328.

Iceland—

moss, analyses, Rec. III, 9.

progress in, Rec. X, 98.

Icerya—*ægyptiacum*, notes, Rec. II, 333; VII, 594, 792.

Icerya—Continued.*montserratensis*—

in Columbia, Rec. VI, 440.

notes, Rec. II, 303.

palmeri, notes, Rec. II, 303; IV, 418.*purchasi*. (See SCALE, FLUTED.)*purchasi crawii*, notes, Rec. IX, 470.*purchasi maskelli*, notes, Rec. IX, 470.*roseæ*, notes, Rec. II, 303.

sp., notes, Rec. III, 183.

Icerya—

Australian genus, Rec. VI, 564.

new parasite of, Rec. IV, 284.

Ichanthus lanceolatus, notes, Rec. VIII, 748.*Ichneumon*—*cestus* as an enemy of the oak looper, Rec. III, 359.*fossorius*, notes, Rec. II, 116.*unifasciatus*, notes, Rec. II, 116.*Ichneumon* flies, notes, Rec. VI, 237, 443; X, 768; XI, 168.*Ichneumonidæ*—

literature in nineteenth century, Rec. XII, 973.

of Europe, Rec. IX, 372.

Provancher's, Rec. VI, 441.

Ichthyol for pulmonary tuberculosis, Rec. VIII, 1016.

Ichthyological work of Russian Society of Acclimatization of Animals and Plants, Rec. X, 321.

Ichthyura inclusa, notes, Rec. III, 54; V, 884.*Icones fungorum*, notes, Rec. X, 416.*Ictero-hæmaturia*, parasitic, of sheep, Rec. VII, 986.*Icteroid bacillus*, Rec. XI, 192.

Idaho coffee pea, analyses, Rec. X, 275.

Idia, spp., parasitic habits, Rec. VI, 151.*Idiocerus nervatus*, n. sp., notes, Rec. VI, 564.*Idit*, studies, Rec. VII, 365.*Idiurus macrotis*, notes, Rec. IX, 1031.

Idomic acid, studies, Rec. VII, 365.

Idosaccharic acid, studies, Rec. VII, 365.

Idose, studies, Rec. VII, 365.

Ignis fatuus or Jack-o'-lantern, Rec. IX, 424.*Ilex cassine*, analyses, Rec. III, 415.

Illinois, Biological Experiment Station of the University of, Rec. VIII, 960.

Illinois College of Agriculture, Rec. V, 542.

Illumination, effect on stomata, Rec. XI, 115.

Imbedding—

methods, new, Rec. VII, 469.

seeds, Rec. X, 418.

Imbibition of rocks, Rec. III, 328.

Imbricated snout beetle, Rec. VIII, 504.

Immunity—

and infection—

as related to lymphatic system, Rec. XI, 90.

studies, Rec. XII, 389.

as affected by injections of blood from other species, Rec. XI, 892.

from disease, natural and artificial, Rec. V, 540.

from hog cholera and swine plague, Rec. VIII, 268.

studies, Rec. VII, 278; X, 497; XI, 390.

Immunization, excessive, loss of bactericide action, Rec. XI, 292.

Imperata hookeri, notes, Rec. IV, 498.

Imperial feed, analyses, Rec. VIII, 426.

Imperial Moscow Society of Agriculture, Rec. X, 298.

Implements, farm. (See FARM IMPLEMENTS.)

Imports—

agricultural—

Danish, Rec. IX, 397.

of the United States, Rec. IX, 999.

and exports, value, Rec. V, 798.

their overvaluation, Rec. V, 798.

Impurities in milk, Rec. IX, 284, 378, 805.

Inbreeding of farm animals, Rec. VI, 574.

Incisions in vegetable tissues, healing, Rec. VII, 839.

Incubator tests, Rec. X, 1088.

Incubators, construction, Rec. III, 399.

Incurvaria—*acrifoliella*, notes, Rec. X, 168.*capitella*, notes, Rec. VI, 65; VIII, 909.*tumoriæa*, notes, Rec. IX, 862.

Index—

of station literature, Rec. II, 266.

Statistician's reports, Rec. IX, 599.

to authors and publications of U. S. Department of Agriculture, 1841-1897, Rec. X, 298.

mycological literature, Rec. III, 759, 811; IV, 956.

station publications, Rec. III, 760.

India—

agricultural notes, Rec. V, 448.

cotton crop for the years 1893-94, Rec. V, 1088.

crop report, Rec. IV, 787.

predictions of drought in, Rec. V, 1086.

rubber. (See RUBBER.)

Indian—

beard grass, notes, Rec. VI, 93.

callalu, analyses, Rec. XI, 249.

cetonia, trapping, Bul. 2, I, 170.

fig, chemical analysis, Rec. VII, 687.

hay grass, notes, Rec. IX, 453.

hemp, notes, Rec. VI, 207.

meal moth, notes, Rec. VII, 515.

millet, analyses, Rec. VI, 403.

peas, poisonous leguminous seed in, Rec. V, 1101.

reed grass, analyses, Rec. VI, 403.

rice, analyses, Rec. VI, 403.

soils, composition, Rec. X, 421.

tanning materials, Rec. VI, 251.

Indians, North American, food plants, Rec. VII, 63.

Indiasta incompleta, notes, Rec. IX, 365.

Indican, sugar from, Rec. VI, 615.

Indicator—

new, Rec. XI, 214, 514; XII, 213.

phenolphthalein, Rec. V, 253.

Indicators—

chemical, notes, Rec. IV, 314.

in alkalimetry, Rec. XI, 310.

occurrence in nature, Rec. XII, 516.

preparation and use, Rec. XI, 619.

studies, Rec. VII, 559; VIII, 860.

Indigenous plants of Natal, Rec. VI, 278.

Indigestion caused by fungus-infested cornstalks, Rec. XI, 592.

Indigo—

- as green manure for wheat, Rec. V, 331.
- carmin for testing fresh milk, Rec. X, 90.
- curly, notes, Rec. XII, 760.
- dye vats, refuse, analyses, Rec. XI, 917.
- false, notes, Rec. III, 522.
- fermentation, Rec. XII, 118.
- gypsum for, Rec. V, 332.
- insects affecting, Rec. XI, 1063.
- large, notes, Rec. XII, 760.
- method of analysis, Rec. VII, 745.
- natural and artificial, Rec. XI, 112.
- new method of testing, Rec. VII, 558.
- plants, notes, Rec. XII, 118.
- refuse as a fertilizer, Rec. XI, 144.
- waste, analyses, Rec. VII, 380.

Indigofera cordifolia, notes, Rec. VI, 245.

Individualism of plants, Rec. XI, 249.

Indol—

- as a reagent for nitrites, Rec. V, 1027.
- formation and combustion, Rec. XI, 576.

Industrial—

- chemistry, dictionary, Rec. XI, 618.
- plants, Rec. VI, 898.
- work of the Seaboard Air Line Railroad, Rec. VIII, 1035.

Industry—

- and trade, domestic and foreign, Rec. IV, 429, 431.
- v. speculation, Rec. III, 813.

Infant—

- digestion experiments, Rec. XII, 677.
- foods, analyses, Rec. VII, 708; VIII, 330.

Infants—

- asses' milk for, Rec. IX, 590.
- bitter milk for, Rec. XII, 186.
- cooked and uncooked milk for, Rec. V, 926.
- dietary studies, Rec. XII, 677.
- feeding, Rec. XI, 184.
- "Germ free" milk for, Rec. XI, 889.
- milk as food for, Rec. VIII, 719.
- milk from one cow v. mixed milk for, Rec. XI, 692.
- preparation of milk for, Rec. V, 258.
- sterilized milk for, Rec. V, 1050; VIII, 330.
- Swedish milk, analyses, Rec. X, 791.

Infection—

- and immunity—
 - as related to lymphatic system, Rec. XI, 90.
 - studies, Rec. XII, 389.
- threefold, Rec. X, 193.

Inflammation of lungs of sheep, nature and treatment, Rec. III, 619.

Inflorescence—

- abnormal, notes, Rec. VI, 873.
- of *Rosa*, Rec. VIII, 380.

Influenza—

- inoculation experiments, Rec. XI, 288.
- notes, Rec. II, 20; XII, 790.

Infusoria—

- and algæ as affected by chemicals, Rec. VIII, 670.
- for destroying bacteria in river water, Rec. V, 127.
- in stomachs of ruminants, Rec. XI, 91, 896.

Injector—

for benzine and carbon bisulphid, Rec. X, 156.

new, for pure serum, Rec. VII, 893.

Ink cap. (See *COPRINUS ATRAMENTARIUS*.)

Inoculation—

experiments—

- for anthrax, Rec. V, 353, 1101; VII, 252; VIII, 268; X, 595.
- swine erysipelas, Rec. IX, 893.
- with chinch bugs, Rec. VII, 226.
- endocarditis, Rec. VII, 252.
- foot-and-mouth disease, Rec. V, 349; XI, 695, 696.
- glanders, Rec. V, 608.
- hog cholera, Rec. V, 608.
- rusts, Rec. VII, 225.
- swine plague, Rec. V, 608.
- tubercle bacilli, Rec. VIII, 926.

for hog cholera, Rec. III, 894; X, 496.

influenza, Rec. XI, 288.

plant disease, Rec. X, 457.

pleuro-pneumonia, Rec. VII, 618.

root tubercles, Rec. V, 843; X, 119.

Texas fever, Rec. XI, 391.

tuberculosis, Rec. VI, 664; X, 94.

in utero, Rec. XI, 594.

needle for mycological studies, Rec. V, 924.

of cows with bacillus of diphtheria, Rec. V, 824.

preventive, Rec. XI, 291, 393, 893.

protective, Rec. X, 192.

with tuberculin for tuberculosis, Rec. IV, 316, 323, 359, 450, 519, 694, 987.

Inosite, physiological rôle, Rec. XII, 313.

Insect— (See also INSECTS.)

boring into lead, Rec. X, 571.

collection of Columbian Exposition, Rec. V, 900.

coloration, Rec. IX, 1071; X, 870.

colors, investigations, Rec. IV, 518.

disease, new, contagious, Rec. VII, 791.

eggs, Rec. VII, 517.

embryology, treatise, Rec. III, 812.

exterminator, analyses, Rec. III, 292.

injury—

- as affected by irrigation, Rec. IV, 666.
- to wood, nature and prevention, Rec. V, 991, 1019; VI, 488.

larvæ, studies, Rec. X, 167.

life—

- as affected by cold, Rec. VIII, 419.
- influenced by environment, Rec. IX, 252.
- textbook, Rec. IX, 574.

lime for protection of fruit trees, Rec. VI, 742.

new, on quince and plum trees, Bul. 2, I, 154.

ova as affected by gases and vapors, Rec. VIII, 808.

parasites—

- in California, Rec. IX, 571.
- of grasshoppers, Rec. VIII, 145; IX, 663; X, 164; XI, 265.

parasitism, Rec. VII, 793, 880, 882.

parasitism—

- notes, Rec. VI, 149, 317, 440, 654, 655.
- studies, Rec. IX, 151, 258, 372, 668.

Insect—Continued.

- pollination—
 - of *Coryanthes macrantha*, Rec. IX, 358.
 - fruits, Rec. VIII, 904.
 - transformations, Rec. VII, 700.
 - trap—
 - description, Rec. X, 65.
 - lantern, Rec. X, 661.
 - test, Rec. III, 870.
 - visitors of flowers, Rec. X, 519.
 - war, Chinese, Rec. IX, 1071.
- Insectaries, construction, Rec. IX, 774.
- Insectary—
- at New York, Cornell Station, Bul. 2, I, 169; Rec. II, 502.
 - North Dakota Station, Rec. IV, 170.
 - Ohio Station, Rec. IV, 950; X, 1076.
- Insecticide—
- appliances, Rec. IV, 57, 171; V, 63, 64, 792; VI, 739; VII, 43.
 - gas tar and water as an, Rec. II, 416.
 - pumps, tests, Rec. XI, 172.
 - soaps, preparation, Rec. IX, 662.
 - water, hot, as an, Rec. V, 593; VII, 968.
- Insecticides— (See also different kinds and specific insects.)
- adhesive, Rec. XI, 478.
 - analyses, Bul. 2, I, 33, 191; Rec. III, 162; IV, 25, 58; V, 206; VI, 110, 317; VIII, 321, 507; IX, 372; X, 568; XI, 812.
 - and fungicides—
 - apparatus for applying, Rec. VI, 739.
 - combined, Rec. I, 294; II, 24, 217, 408, 586; III, 23, 96, 101, 357, 403, 480, 523, 621, 864, 892, 926; IV, 42, 561, 838, 927; V, 62; VII, 559, 651.
 - combined, for apples, Rec. II, 660.
 - combined, for potatoes, Rec. II, 24.
 - new, Rec. V, 684; XI, 60.
 - preparation and use, Rec. VI, 739; IX, 676.
 - use, Rec. IX, 676.
 - and spraying, Rec. VI, 236.
 - arsenical—
 - adulteration, Rec. XI, 1100; XII, 820.
 - methods of analysis, Rec. XII, 820.
 - as a cause of plant injuries, Rec. VIII, 418.
 - dry v. wet application, Rec. II, 269.
 - effect, Rec. X, 571; XI, 172.
 - effect on—
 - foliage, Rec. III, 926; XII, 164, 165.
 - fruit trees, Rec. XII, 860.
 - healthfulness of fruit. (See footnote, p. 66.)
 - peach foliage, Rec. V, 684.
 - experiments, Bul. 2, II, 59, 87; Rec. II, 323, 415, 599, 718, 719, 720; III, 46, 54, 93; VII, 146; VIII, 709; IX, 661, 664; X, 567, 870.
 - fertilizers as, Rec. II, 269; III, 449, 610; V, 515, 577; VI, 237, 653.
 - inorganic chemicals as, Rec. VI, 568.
 - notes, Rec. X, 1061; XI, 1064, 1067; XII, 665.
 - preparation and use, Bul. 2, II, 32; Rec. I, 21, 138, 295; II, 63, 101, 168, 268, 415, 416, 653, 659, 669, 747; III, 23, 175, 197, 223, 386, 452, 808, 819, 871; IV, 58, 354, 475, 528, 840, 937; V, 62, 63, 64, 100, 206, 310, 402, 498, 683, 686, 732, 822, 827, 992; VI, 61, 64, 65, 315, 437, 559, 650, 651, 739, 915; VII, 42, 43, 44, 45, 141, 144, 147,

Insecticides—Continued.

- 231, 310, 315, 515, 593, 697, 790, 876, 883, 969; VIII, 63, 68, 140, 146, 147, 149, 318, 321, 414, 507, 608, 613, 903, 995, 996, 999; IX, 62, 74, 75, 151, 157, 252, 255, 260, 262, 360, 458, 465, 572, 574, 663, 673, 675, 852, 1066; X, 63, 157, 169, 267, 273, 366, 370, 373, 374, 455, 457, 470, 562, 661, 770; XI, 66, 174, 175, 258, 262, 274, 478, 558, 565, 659, 765, 955, 958, 959; XII, 164, 470, 581, 869.
 - spring application, Rec. XI, 1100.
 - tests, Bul. 2, I, 154; Rec. X, 370.
- Insectivorous mammals of Canada, Rec. X, 25.
- Insects— (See also specific insects.)
- advantages of inspection laws, Rec. XI, 959.
 - agricultural relations, Rec. IV, 932.
 - and birds, relation to forests, Rec. VIII, 891; IX, 142.
 - flowers, Rec. VIII, 70, 108, 268, 904; IX, 28, 158, 330, 358, 768; X, 22, 68, 166, 519, 647.
 - flowers, interrelations, Rec. VI, 787, 874; VII, 564, 656, 839.
 - fungus injuries, Rec. VI, 61.
 - plant diseases, law for suppression, Rec. X, 662.
 - plants, interrelations, Rec. IV, 283.
 - the pollination of plums, Rec. XI, 348.
 - appearing on snow, Rec. IV, 84.
 - as a cause of potato scab, Rec. V, 935.
 - as affected by—
 - cold, Rec. IX, 423; XII, 1068.
 - weather, Rec. XII, 161.
 - as carriers of—
 - disease, Rec. IV, 669; XI, 995.
 - infection, Rec. XII, 67.
 - attracted to flowers and plants, Rec. IX, 28, 158, 330, 768; X, 68, 166.
 - Australian, importation, Rec. IV, 852.
 - beneficial, Rec. XI, 370.
 - beneficial—
 - acclimatization, Rec. X, 768, 1076.
 - and injurious, Rec. VII, 791; VIII, 148, 711.
 - injurious, of California, Rec. V, 100.
 - injurious of France, Rec. VII, 968.
 - injurious of Java, Rec. X, 168, 469.
 - parasitic, Rec. VIII, 68.
 - collection in Australia, Rec. III, 546, 813.
 - collection in the Sandwich Islands, Rec. III, 546.
 - in Australia, Rec. VI, 742.
 - California, Rec. VI, 741.
 - Hawaiian Islands, Rec. VIII, 913.
 - notes, Rec. III, 175; VI, 236.
 - on hops, Rec. V, 236.
 - protection, Rec. VI, 837.
 - birds and flowers, calendar, Rec. VIII, 961.
 - Botrytis on, Rec. V, 438.
 - choice of colors by, Rec. XII, 163.
 - classification, Rec. IV, 932; VI, 742; VII, 698; VIII, 418; X, 373; XII, 465.
 - collecting, Rec. I, 138.
 - collecting and rearing, methods of, Rec. XI, 951.
 - collection and preservation, Rec. XI, 172, 272.
 - color as affected by environment, Rec. XI, 870.
 - combating, Rec. VI, 237; XI, 67.

Insects—Continued.

- combating by natural enemies, *Rec. XI*, 959.
- common names, list of, *Rec. X*, 61, 1061.
- control, *Rec. III*, 811; *IV*, 57; *VIII*, 711.
- control in California, *Rec. IX*, 570.
- cooperative work against, *Rec. VI*, 441.
- cross fertilizing flowers, *Rec. VII*, 564.
- defensive or repugnatorial glands, *Rec. VII*, 791; *VIII*, 809.
- distribution in Ohio, *Rec. XI*, 272.
- economic status, *Rec. XI*, 168.
- epidermic cells, *Rec. VII*, 315.
- estimates of depredations, *Rec. XI*, 370.
- fertilization of flowers, *Rec. VIII*, 108; *X*, 647.
- fertilizing an aroid plant, *Rec. VI*, 1002.
- flying mechanism, *Rec. X*, 976; *XI*, 562.
- foreign exhibits at World's Fair, *Rec. V*, 900.
- functional adaptations of the epidermic cells, *Rec. VI*, 917.
- gall-making, *Rec. X*, 68.
- garden, notes, *Rec. II*, 455.
- grass-eating, synopsis of species, *Rec. VI*, 62.
- habits and metamorphoses, *Rec. VI*, 916.
- history and classification, *Rec. VII*, 698.
- household, *Rec. XII*, 67.
- household, temperature effects, *Rec. IX*, 660.
- hymenopterous, poison apparatus, *Rec. V*, 1100.
- in a decayed cherry tree, *Rec. VI*, 567.
 - burrow of Florida land tortoise, *Rec. VI*, 440.
 - farm, garden, and orchard, *Rec. VIII*, 321.
- injuring fruit, winter treatment, *Rec. VII*, 595.
- injurious, *Rec. VI*, 152; *VII*, 146, 518; *VIII*, 175, 507; *IX*, 862.
- injurious—
 - as affected by drought, *Rec. V*, 348.
 - classification, *Rec. VII*, 315.
 - contagious diseases, *Rec. II*, 455.
 - descriptions and remedies, *Rec. V*, 593.
 - early accounts, *Rec. IV*, 83.
 - field investigations, *Rec. II*, 5.
 - food plants, *Rec. IV*, 667.
 - hibernation as affected by temperature, *Rec. X*, 61.
 - history of observations, *Rec. III*, 812.
 - importation, *Rec. X*, 570.
- in Alabama, *Rec. V*, 63; *VIII*, 557.
 - Aldabra, Assumption, and Gloriosa islands, *Rec. VI*, 440.
 - Arkansas, *Rec. III*, 183; *IX*, 370.
 - Australia and adjacent islands, *Rec. V*, 103.
 - California, *Rec. II*, 81; *V*, 100.
 - Canada, *Rec. IV*, 667.
 - Colorado, *Rec. I*, 10; *VI*, 440; *X*, 770.
 - Connecticut, *Rec. VIII*, 418.
 - Delaware, *Rec. II*, 322.
 - England, *Rec. III*, 327; *VIII*, 148, 908, 911; *X*, 165.
 - Fiji Islands, *Rec. IV*, 852.
 - Finland, *Rec. X*, 168, 768; *XII*, 68.
 - Florida, *Rec. VI*, 1001; *VIII*, 1002; *X*, 972.
 - France, *Rec. VIII*, 809, 1002.

Insects—Continued.

injurious—continued.

- in Hawaii, *Rec. VI*, 441; *VII*, 506.
- Hungary, *Rec. VII*, 595.
- India, *Rec. VII*, 594.
- Indiana, *Rec. VIII*, 321.
- Iowa, *Rec. III*, 55; *IV*, 204, 667; *V*, 517, 989; *VI*, 265; *IX*, 67; *X*, 271.
- Kansas, *Rec. IV*, 667.
- Maine, *Rec. X*, 871; *XI*, 956.
- Maryland, *Rec. V*, 685; *X*, 65, 1061.
- Massachusetts, *Rec. VIII*, 146.
- Mexico and Japan, *Rec. VIII*, 610.
- Michigan, *Rec. X*, 168.
- Minnesota, *Rec. VIII*, 144.
- Mississippi, *Rec. III*, 327; *IV*, 667.
- Missouri, *Rec. IV*, 203.
- Nebraska, *Rec. II*, 81; *III*, 53; *IV*, 203.
- Nevada, *Rec. X*, 163.
- New Hampshire, *Rec. VIII*, 321; *X*, 459.
- New Jersey, *Bul. 2*, *I*, 137; *Rec. III*, 327; *IV*, 667; *VI*, 652; *X*, 457; *XII*, 367.
- New Mexico, *Rec. V*, 884; *VI*, 652.
- New South Wales, *Rec. IX*, 768.
- New York, *Rec. X*, 268, 1058.
- New York City parks, *Rec. VI*, 651.
- New Zealand, *Rec. V*, 103.
- North Carolina, *Rec. VI*, 236.
- North Idaho, *Rec. VI*, 652.
- Norway, *Rec. VI*, 567; *VII*, 793; *X*, 65.
- Nova Scotia, *Rec. VI*, 440.
- Ohio, *Rec. IV*, 204; *VIII*, 415, 505; *IX*, 67; *X*, 62, 1061; *XI*, 1100.
- Ontario, *Rec. X*, 164, 167, 272.
- Ottawa, *Rec. VI*, 441, 1008.
- Pennsylvania, *Rec. IX*, 964.
- Prussia, *Rec. VIII*, 801.
- Queensland, *Rec. VI*, 440.
- South Africa, *Rec. X*, 61.
- South Dakota, *Rec. III*, 327.
- Sweden, *Rec. VII*, 44; *X*, 65; *XI*, 66.
- Texas, *Rec. III*, 183.
- Trinidad, *Rec. V*, 517.
- the United States in 1892, *Rec. V*, 101, 517.
- Vermont, *Rec. X*, 459.
- index to Miss Ormerod's report, *Rec. XI*, 765.
- natural enemies, *Rec. IV*, 204.
- natural enemies in India, *Rec. XI*, 1063.
- notes, *Bul. 2*, *II*, 33, 58, 118; *Rec. II*, 80, 178, 392, 415, 482, 659, 664, 718, 719, 730; *III*, 96, 175, 176, 197, 218, 282, 291, 309, 313, 396, 403, 811, 859; *IV*, 415, 661; *X*, 374; *XI*, 957, 1100; *XII*, 264, 265, 868.
- remedies, *Rec. IV*, 873, 932; *V*, 732, 827, 992; *VI*, 838; *VII*, 316, 413; *X*, 165, 267; *XI*, 372; *XII*, 665, 798, 997.
- repression, *Rec. III*, 610, 808; *VIII*, 415; *IX*, 260.
- repression by fungus diseases, *Rec. IV*, 783; *VI*, 655.
- to cereals, *Rec. V*, 516.
 - crops, *Rec. IV*, 173, 971.
 - fruit, winter treatment, *Rec. VII*, 595.
 - fruits, handbook, *Rec. X*, 768.

Insects—Continued.

- injurious—continued.
 - to grapes, remedies, *Rec. III*, 23; *IV*, 873.
 - pears, *Rec. IV*, 372; *V*, 438; *VII*, 792.
 - strawberries, *Rec. IX*, 648.
 - the locust, *Rec. III*, 228.
 - trees. (*See TREES.*)
 - vegetables, *Rec. IX*, 74.
- in sugar, *Rec. V*, 901.
- in the human ear, *Rec. V*, 514.
- inspection laws, advantages, *Rec. XI*, 959.
- introduction on trees, *Rec. XII*, 798.
- lantern trap, *Rec. X*, 661; *XI*, 174.
- legislation against, *Rec. IV*, 840; *VI*, 440, 740, 916, 1002; *VIII*, 148, 507, 912, 913; *IX*, 675; *X*, 375, 662; *XI*, 959.
- manual, *Rec. VII*, 147; *XI*, 272.
- migration, *Rec. XII*, 663.
- migration between Germany and the United States, *Rec. XI*, 764.
- mildew of, *Rec. V*, 926.
- mimicry of, *Rec. VI*, 149; *VII*, 517; *VIII*, 419, 712.
- molting—
 - as means of defense, *Rec. XI*, 172.
 - conditions affecting, *Rec. IX*, 963.
- mounting, *Rec. IX*, 159, 468.
- mouth parts, *Rec. VII*, 174; *IX*, 575.
- ocelli, structure, *Rec. XII*, 973.
- of Death Valley, California, *Rec. V*, 90.
- Salt River Valley, Arizona, *Rec. XII*, 364.
- on Mount Fuji, *Rec. X*, 1076.
- orders, *Rec. III*, 452.
- parasites, *Rec. IX*, 776.
- parasites, economic value, *Rec. XI*, 1100.
- parasitic—
 - and predaceous, economic value, *Rec. V*, 516.
 - breeding, *Bul. 2*, *I*, 179.
 - collecting and breeding, *Rec. VII*, 146.
- phosphorescent organs, *Rec. VIII*, 69.
- pollen distributing, *Rec. VIII*, 268.
- predaceous and parasitic, *Rec. V*, 514; *VI*, 237, 654, 655, 742, 836; *VII*, 882.
- preparation with peroxid of hydrogen, *Rec. IX*, 468.
- preservation with formalin, *Rec. VII*, 700.
- protective powers against cold, *Rec. XII*, 367.
- quarantine against, *Rec. V*, 901; *XI*, 950.
- relation to plants, *Rec. X*, 769.
- scale—
 - new, *Rec. VIII*, 69; *IX*, 369.
 - useful, *Rec. X*, 62.
- senses of, *Rec. VI*, 563; *VII*, 231, 700.
- soil treatment, *Rec. X*, 660.
- spittle, notes, *Rec. II*, 654.
- structure and classification, *Rec. X*, 373.
- studies of wings, *Rec. XI*, 562.
- study, methods of, *Rec. XII*, 580.
- synopsis of orders and families, *Rec. V*, 594.
- temperature, *Rec. XI*, 556.
- transformation, *Rec. VII*, 517.
- transmission of—
 - alcoholic ferments by, *Rec. X*, 123.
 - diseases by, *Rec. XI*, 561, 693, 995.
- trap crops for, *Rec. IX*, 574.
- trapping and destroying, *Rec. V*, 63.

Insects—Continued.

- underground, new method of destroying, *Rec. X*, 769; *XI*, 562.
- undetermined species on wheat, *Rec. IV*, 417.
- variation, *Rec. VIII*, 808.
- vitality, *Rec. IX*, 159.
- wintering in moss, *Rec. VIII*, 808.
- wood boring of fruit trees, *Rec. XI*, 173.
- Inspection laws in Maine, *Rec. IX*, 899.
- Insternburg, Germany, Experiment Station, report *Rec. III*, 260.
- Institute of Hygiene of Padua, publications, *Rec. X*, 780.
- Institutions, educational, government, *Rec. VIII*, 558.
- Insulating materials, tests, *Rec. X*, 796.
- Insurance—
 - against drought, *Rec. X*, 325.
 - societies for live stock, *Rec. V*, 441.
- Intercellular nutrition, *Rec. VII*, 467.
- International date, *Rec. XI*, 221.
- Internodes—
 - curving during growth, *Rec. VII*, 188.
 - of stalks of rye and wheat, *Rec. V*, 539.
- Intestinal round worms, notes, *Rec. II*, 79.
- Intestine, large, of dogs, effect of removal, *Rec. XI*, 276.
- Intravenous injections, advantages, *Rec. XI*, 892.
- Inula graveolens*, notes, *Rec. VII*, 511, 690.
- Inulase and inulin, studies, *Rec. XII*, 313.
- Inulin—
 - action of oxalic acid on, *Rec. VI*, 966.
 - effect on glycogen formation, *Rec. XII*, 981.
 - in plants, *Rec. VII*, 643.
 - occurrence and nature, *Rec. XI*, 217.
- Invalids—
 - and infants, prepared food for, *Rec. VIII*, 330.
 - food and diet, *Rec. VIII*, 720.
- Invert sugar. (*See SUGAR, INVERT.*)
- Invertase in bananas, *Rec. V*, 252, 329.
- Invertin, presence in grapes, *Rec. XII*, 716.
- Investigators—
 - and teachers—
 - in colleges and stations, *Rec. V*, 274.
 - relation between, *Rec. III*, 140.
 - differentiation from teachers, *Rec. XII*, 403.
 - training for, *Rec. XII*, 1015.
- Iodic acid, determination in nitrate of soda, *Rec. XII*, 308.
- Iodid of potash. (*See POTASSIUM IODID.*)
- Iodin—
 - addition method, *Rec. V*, 252, 253; *VII*, 17, 273.
 - as an insecticide and fungicide, *Rec. V*, 684.
 - attraction for water, *Rec. IV*, 221.
 - combination with potato starch, *Rec. VII*, 738.
 - content of air, *Rec. XI*, 133.
 - experiment, Sach's, *Rec. V*, 818.
 - fat, transmission in the body, *Rec. X*, 389.
 - fixation by—
 - potato starch, *Rec. VII*, 185, 738.
 - starch, *Rec. IV*, 313; *V*, 817, 1026.
 - for determination of carbonic acid, *Rec. VIII*, 861.
 - indicator for—
 - acidity of beer, *Rec. V*, 253.
 - colored vegetable extracts, *Rec. V*, 253.
 - wort, *Rec. V*, 253.

Iodin—Continued.

- in organic compounds, detection, **Rec. VII**, 18, 272.
- saline waters, determination, **Rec. X**, 315.
- number of butter, **Rec. III**, 88; **IV**, 569, 663, 664; **V**, 1097.
- number—
 - of butter, effect of different oils on, **Rec. V**, 974.
 - fats and oils, **Rec. IV**, 781; **VII**, 460.
 - fats in feeding stuffs, **Rec. V**, 461.
 - fatty acids, **Rec. XI**, 813.
 - lard, **Rec. IX**, 1024.
- occurrence in—
 - animal body, **Rec. VII**, 616, 891; **VIII**, 254.
 - hair, **Rec. IX**, 115.
- protein compounds, value in veterinary practice, **Rec. XII**, 790.
- reaction on starch, **Rec. VI**, 615.
- solution, preparation, **Rec. V**, 461.
- starch, **Rec. VI**, 376.
- value, determination, **Rec. XI**, 705; **XII**, 516.

Iodoform—

- antiseptic power, **Rec. XI**, 496.
- as an antiseptic, **Rec. IV**, 74.

Iodol, as an antiseptic, **Rec. IV**, 360.*Iola lasioboli*—

- notes, **Rec. X**, 1057.
- n. sp., notes, **Rec. XI**, 361.

Iowa—

- blue joint, analyses, **Rec. II**, 329.
- geological survey, report, **Rec. X**, 130.

Ipochus fasciatus, notes, **Rec. III**, 812.*Ipomoea*—

- alata*, notes, **Rec. III**, 103.
- bracteata*, notes, **Rec. III**, 104.
- carletoni*, notes, **Rec. IV**, 580.
- mexicana*, notes, **Rec. VI**, 732.
- pandurata*—

- notes, **Rec. III**, 893; **V**, 398.
- root system, **Rec. IV**, 45.

purpurea, notes, **Rec. III**, 893; **VI**, 732.*Ips fasciatus*, notes, **Bul. 2**, 1, 170; **Rec. X**, 169.

Iris—

- and lily disease, notes, **Rec. VI**, 234.
- bulb, fungus disease, **Rec. XI**, 360.
- bulbous, culture, **Rec. X**, 641.
- California, culture, **Rec. IX**, 756.
- German, lithium in, **Rec. III**, 925.
- leaf and root disease, notes, **Rec. XII**, 263.
- notes, **Rec. V**, 912; **IX**, 842.

Iris germanica, notes, **Rec. IV**, 654.Irish moss, notes, **Rec. IV**, 715.

Iron—

- acetate for hogs poisoned by cockle seed, **Rec. V**, 813.
- and alumina—
 - in mineral phosphates, determination, **Rec. V**, 126.
 - phosphates, determination, **Rec. VI**, 368, 691, 867.
 - phosphates, Glaser method for determining, **Rec. II**, 522.
 - the reversion of superphosphates, **Rec. VI**, 978.
- and aluminum oxids, determination, **Rec. VII**, 457.

Iron—Continued.

- and iron ores, determination of phosphorus, **Rec. X**, 314.
- arsenite, effect on algæ and fungi, **Rec. XII**, 1014.

as a cause of bluing of cheese, **Rec. VIII**, 832.

assimilation, **Rec. IX**, 475; **XII**, 478.

bark, analyses, **Rec. XII**, 39.

chlorid—

- as a fungicide, **Rec. V**, 684.
- for corn smut, **Rec. III**, 287.
- grain rusts, **Rec. IV**, 955.
- purification of sugar-beet juices, **Rec. V**, 261.
- sorghum rust, **Rec. III**, 287.
- wheat rust, **Rec. III**, 286.
- with arsenites, **Rec. III**, 175.

compounds—

- distribution in animal and vegetable cells, **Rec. VI**, 968; **VII**, 468.
- physiological rôle, **Rec. XI**, 1008.

content of plant ash, **Rec. IX**, 45.

crystalline sesquiphosphate, **Rec. VII**, 834.

determination, **Rec. IX**, 224, 321, 417, 620.

determination in—

- hydrochloric-acid solution, **Rec. XI**, 213.
- organic substances, **Rec. XI**, 813.
- presence of alumina, **Rec. XI**, 613.
- water, **Rec. XI**, 23.

effect on—

- growth of barley, **Rec. V**, 1094.
- growth of plants, **Rec. V**, 1097.
- taste and smell of butter, **Rec. V**, 1053.

ferrocyanid for grain rusts, **Rec. IV**, 955.

for chlorosis, **Rec. V**, 1031; **VI**, 312; **VII**, 225, 411; **X**, 764.

hydrated phosphate, treatment for fertilizer, **Rec. V**, 436.

in ash of plants and animals, determination, **Rec. V**, 817.

ash of vegetable or animal matter, **Rec. VII**, 18.

barley, distribution and form, **Rec. IV**, 301.

dietaries, **Rec. VII**, 522; **VIII**, 81.

milk, **Rec. VII**, 156.

phosphates, determination, **Rec. VII**, 272.

plants, **Rec. IV**, 984; **VII**, 468.

potassium hydroxid, **Rec. IV**, 984.

Trapa natans, cause, **Rec. IX**, 727.

or zinc in reduction of nitrogen, **Rec. VII**, 91, 272.

ores, analyses, **Bul. 2**, 1, 22; **Bul. 2**, II, 38; **Rec. II**, 514, 666, 744; **IV**, 244; **V**, 861; **VII**, 366; **VIII**, 377, 563; **X**, 194.

oxid—

- action in rocks and soils, **Rec. IV**, 614.
- and alumina, determination in phosphates, **Rec. IV**, 313.
- and alumina, separation, **Rec. IV**, 782.
- determination, **Rec. VIII**, 286, 559, 663.
- determination in phosphates, **Rec. XII**, 107.
- effect on potato scab, **Rec. III**, 772.
- oxysulphocarbonates in the water of the Rhone, **Rec. XII**, 731.
- physiological function in plants, **Rec. X**, 518.
- pyrites and oxid of iron in mineral phosphates, **Rec. V**, 538.

Iron—Continued.

- salts, effect on yeast, *Rec. VI*, 507.
- separation from impure tartrate solutions, *Rec. V*, 433.
- storing and excretion by animals, *Rec. F*, 1031.
- sulphate— (*See also* SULPHATE OF IRON.)
 - absorptive power of soils for, *Rec. VI*, 121.
 - action on calcium phosphate, *Rec. IV*, 612.
 - and lime for grape anthracnose, *Rec. XI*, 59.
 - as a fertilizer, *Rec. IV*, 435.
 - an insecticide, *Rec. II*, 720.
 - effect on algæ and fungi, *Rec. XII*, 1014.
 - effect on conservation of nitrogen in bare soils, *Rec. III*, 750, 917.
 - effect on corn, *Rec. I*, 62.
 - effect on nitrification, *Rec. III*, 917.
 - effect on seed corn and wheat, *Rec. II*, 32.
 - effect on vitality of seed wheat, *Rec. III*, 358.
 - experiments, *Rec. III*, 864.
 - for bean anthracnose, *Rec. IV*, 558.
 - brown rot of stone fruits, *Rec. III*, 860.
 - chlorosis, *Rec. VIII*, 63; *X*, 764, 1058.
 - cranberry diseases, *Rec. III*, 307.
 - Cardamine pratensis*, *Rec. XII*, 350.
 - grain rusts, *Rec. IV*, 955.
 - grape oidium, *Rec. VIII*, 995.
 - moss in meadows and lawns, *Rec. IV*, 963.
 - mustards, *Rec. X*, 760; *XI*, 461; *XII*, 250, 253, 351, 564.
 - peas, *Rec. V*, 233.
 - potato scab, *Rec. II*, 61.
 - purifying sewage, *Rec. V*, 436.
 - raspberry anthracnose, *Rec. V*, 60; *IX*, 763.
 - weeds, *Rec. IX*, 846; *X*, 1049; *XII*, 253, 565, 961.
 - wireworms, *Rec. III*, 448.
 - in soils, effect on cereals, *Rec. III*, 919.
 - the soil, effect on yield of grains, *Rec. III*, 750.
 - preparation and use, *Rec. II*, 23; *III*, 23.
 - reaction with phosphates, *Rec. III*, 927; *IV*, 206.
 - with arsenites, *Rec. III*, 175.
- Ironweed, analyses, *Rec. III*, 629.
- Ironwood, notes, *Rec. III*, 521, 893; *IV*, 655.
- Irrigation, *Rec. XII*, 96.
- Irrigation— (*See also* WATER, SUBIRRIGATION, and *specific crops*.)
 - and Congress, *Rec. XI*, 195.
 - drainage, *Rec. XI*, 826.
 - fertilizers, *Rec. VII*, 631.
 - underdrainage at Louisiana Station, *Rec. IV*, 457.
 - sociology, *Rec. XI*, 195.
 - apparatus for raising water, *Rec. III*, 656.
 - artesian, *Rec. III*, 373; *X*, 397; *XI*, 798.
 - as related to forestry, *Rec. X*, 856.
 - Association, State, of Nebraska, *Rec. VIII*, 91.
 - by flooding, *Rec. VII*, 810.
 - furrows, *Rec. VII*, 810.
 - pumping, cost and profit, *Rec. IX*, 596.
 - tile drains, *Rec. VII*, 734.
 - wire, *Rec. XI*, 620, 819.

Irrigation—Continued.

- canals—
 - building, *Rec. XI*, 195.
 - losses by seepage and evaporation, *Rec. XII*, 895.
 - of the Rhone, *Rec. IV*, 390.
 - State, *Rec. XI*, 197.
- cession of arid lands, *Rec. XI*, 195.
- commission, Thebus, report, *Rec. XI*, 395.
- Congress, National, proceedings, *Rec. XI*, 195; *XII*, 499.
- cost, *Rec. X*, 748.
- duty of water, *Rec. IV*, 369, 496, 720, 752; *V*, 691; *VI*, 251; *IX*, 1096; *XI*, 395, 798; *XII*, 295, 398, 1095.
- early v. late, *Rec. V*, 215.
- effect of rate of percolation of water, *Rec. VIII*, 295.
- effect on—
 - climate and health, *Rec. VIII*, 351.
 - fertility of soils, *Rec. VI*, 395.
 - insect injury, *Rec. IV*, 666.
 - June beetle, *Rec. IV*, 666.
 - meadows, *Rec. VIII*, 480.
- engineering, *Rec. II*, 393; *III*, 82.
- engineering—
 - investigations, *Rec. IV*, 368.
 - manual, *Rec. VII*, 900.
- excessive, *Rec. XI*, 599.
- experiments, *Rec. III*, 860, 890; *V*, 87, 414, 656, 930, 1034; *VI*, 85, 86; *VII*, 429, 431; *VIII*, 349.
- fall and spring v. spring, *Rec. V*, 88.
- fall v. spring, *Rec. VI*, 539, 581.
- fertilizing, *Rec. VIII*, 91.
- frequency, *Rec. V*, 87; *VI*, 580.
- hydraulic rams for, *Rec. VII*, 531.
- in America, *Rec. X*, 697; *XII*, 397.
 - arid region of the United States, *Rec. XII*, 397.
 - Arizona, *Rec. IX*, 395.
 - Australia, *Rec. III*, 328; *X*, 697.
 - Belgian Campine, *Rec. XII*, 197.
 - California, *Rec. VIII*, 836; *XI*, 395.
 - China, methods, *Rec. XII*, 397.
 - Colorado, *Rec. II*, 393; *III*, 328; *IX*, 896; *XI*, 294; *XII*, 397.
 - Connecticut, *Rec. IX*, 97.
 - Egypt, *Rec. X*, 697.
 - France, *Rec. XII*, 492.
 - Hawaiian Islands, *Rec. VII*, 258.
 - humid regions, *Rec. VI*, 89; *VII*, 431; *VIII*, 555; *IX*, 394; *XII*, 396.
 - Idaho, *Rec. III*, 328; *XII*, 397.
 - Illinois, *Rec. VIII*, 91.
 - India, *Rec. IV*, 120; *X*, 697.
 - Italy and Spain, *Rec. VIII*, 636.
 - Kansas, *Rec. VII*, 810, *VIII*, 91.
 - Louisiana, *Rec. III*, 860.
 - market gardening, *Rec. XI*, 294.
 - Montana, *Rec. III*, 328; *VIII*, 91.
 - Nebraska, *Bul. 2, I*, 112; *Rec. VII*, 810.
 - New Jersey, *Rec. IX*, 97, *X*, 433; *XII*, 895.
 - New Mexico, *Rec. XI*, 93.
 - New South Wales, *Rec. X*, 895; *XII*, 397, 1096.
 - Oregon, *Rec. III*, 328.
 - Porto Rico, *Rec. XII*, 397.

Irrigation—Continued.

- in Rio Grande Valley, *Rec. XII*, 397.
- Rocky Mountain States, *Rec. XI*, 1093.
- Salt Lake Valley, *Rec. XII*, 317.
- San Joaquin Valley, *Rec. XI*, 196.
- South Dakota, *Rec. III*, 890; *VI*, 581; *VII*, 810; *IX*, 295; *XI*, 97.
- Texas, *Rec. X*, 127.
- United States, *Rec. III*, 328; *XII*, 496.
- Utah, *Rec. X*, 196; *XII*, 1096.
- Washington, *Rec. III*, 328; *V*, 735.
- Wyoming, *Rec. IV*, 496, 956; *X*, 697; *XI*, 294; *XII*, 295.
- Yakima Valley, *Rec. XI*, 395.
- investigations, *Rec. VII*, 634.
- investigations—
 - in Utah, *Rec. XII*, 1096.
 - of U. S. Department of Agriculture, *Rec. IX*, 397; *X*, 201, 901; *XII*, 895.
 - reasons for, *Rec. XII*, 697.
- laws—
 - in Utah, *Rec. XII*, 1096.
 - treatise, *Rec. XII*, 1096.
- literature, *Rec. III*, 48.
- measurement—
 - and division of water, *Rec. II*, 396; *VI*, 485; *VII*, 431.
 - of return waters, *Rec. IX*, 1096.
 - water for, *Rec. VII*, 810; *VIII*, 935; *IX*, 424, 815; *XI*, 798.
- methods, *Rec. VI*, 87; *VII*, 72, 431, 531, 631; *X*, 195, 797; *XII*, 397.
- night *v.* day, for wheat, *Rec. IV*, 824; *VI*, 581.
- of alfalfa, *Rec. XI*, 240; *XII*, 431, 539, 641.
- apricots, *Rec. VIII*, 408.
- apricots in winter, *Rec. XI*, 847; *XII*, 1042.
- asparagus, *Rec. XI*, 735, 1039.
- barley, *Rec. V*, 691; *VII*, 496; *X*, 746.
- beans, *Rec. VIII*, 894.
- blackberries, *Rec. XI*, 735, 1039; *XII*, 246.
- cabbages, *Rec. VIII*, 689; *IX*, 596.
- cauliflowers, *Rec. V*, 691; *VIII*, 689.
- celery, *Rec. VII*, 404; *VIII*, 895.
- clover, *Rec. IX*, 595; *X*, 747; *XII*, 40.
- corn, *Bul. 2, I*, 28; *Rec. III*, 890; *V*, 691; *VIII*, 689, 733; *IX*, 594; *X*, 747; *XI*, 538; *XII*, 40, 842.
- currants, *Rec. XI*, 735, 1039; *XII*, 344.
- field crops, fruits, and vegetables, *Rec. VII*, 258.
- fields and lawns, *Rec. X*, 697.
- fruits, *Rec. III*, 886; *V*, 985, *VI*, 729, *VII*, 258, *VIII*, 130; *XI*, 1039, 1048, *XII*, 344, 345, 896.
- garden crops, *Rec. VIII*, 127, 600, 792, 889, *IX*, 645; *XI*, 294, 547.
- gooseberries, *Rec. XI*, 735, 1039, *XII*, 344.
- grapes, *Rec. VII*, 430; *X*, 152, 854, *XI*, 449, 745, *XII*, 346.
- greenhouses, *Rec. VIII*, 792.
- hay, *Rec. XI*, 537.
- hillsides, *Rec. VIII*, 351.
- hops, *Rec. XI*, 145.
- lettuce, *Rec. XII*, 54, 241.
- Lima beans, bush, *Rec. XI*, 738.
- meadows, *Rec. VII*, 497, *XI*, 734.
- oats, *Rec. IV*, 211, *VI*, 86, *XII*, 40.

Irrigation—Continued.

- of onions, *Rec. V*, 691; *X*, 149.
- orchards, *Rec. VI*, 755; *VII*, 131, 430, 585.
- orchards in winter, *Rec. XI*, 847; *XII*, 798, 1042.
- peanuts, *Rec. X*, 1039.
- peppers, *Rec. VIII*, 894.
- potatoes, *Rec. IV*, 818; *V*, 691; *VI*, 86, 536, 542; *IX*, 43, 595; *X*, 747; *XI*, 538; *XII*, 40, 641.
- raspberries, *Rec. XI*, 735, 1039; *XII*, 344.
- rice, *Rec. VIII*, 307.
- sainfoin, *Rec. XII*, 641.
- sorghum, *Rec. XII*, 842.
- spinach, *Rec. V*, 680; *VIII*, 783.
- squashes, *Rec. VII*, 403.
- strawberries, *Rec. V*, 691; *VIII*, 310, 313, 696; *X*, 355, 434; *XI*, 736, 1039; *XII*, 344.
- sugar beets, *Rec. III*, 445; *IV*, 647; *V*, 293; *X*, 545; *XII*, 334, 541, 1038.
- sugar cane, *Rec. III*, 861; *XII*, 441, 842.
- tobacco, *Rec. VIII*, 303; *XII*, 842.
- tomatoes, *Rec. V*, 691; *VIII*, 226; *XI*, 738; *XII*, 54, 344.
- vegetables, *Rec. VII*, 258, 504; *IX*, 245.
- wheat, *Bul. 2, I*, 29; *Rec. IV*, 211, 824; *VI*, 86, 539, 581; *X*, 44, 634; *XII*, 642.
- on the Great Plains, *Rec. IX*, 597, 797.
- plant in Provence, *Rec. XI*, 398.
- plants in New Jersey, description, *Rec. X*, 433.
- principles, *Rec. VI*, 848.
- progress in, *Rec. VI*, 1029.
- pump—
 - in Kansas, *Rec. VI*, 346.
 - on the plains, *Rec. VII*, 810.
- pumping water for, *Rec. V*, 1002; *VI*, 85, 1029; *VII*, 258; *IX*, 394; *XI*, 1094.
- pumping water by electricity, *Rec. VI*, 582.
- relation to alkali soils and drainage, *Rec. IV*, 120.
- reservoirs—
 - construction, *Rec. V*, 1104.
 - earthen dams for, *Rec. VI*, 87.
 - on the plains, *Rec. XI*, 597.
- Rio Grande water for, *Rec. V*, 1002; *XII*, 834.
- river water for, *Rec. V*, 32.
- season, *Rec. XII*, 295.
- scheme for the Hartz River Valley, *Rec. XI*, 798.
- seepage waters from, *Rec. VII*, 898; *IX*, 1096.
- setting out fruit trees for, *Rec. VII*, 505.
- sewage, *Rec. VI*, 581; *IX*, 395, *XI*, 1093.
- statistics, *Rec. III*, 83.
- storage of water for, *Rec. VI*, 170, 1029; *VII*, 810.
- studies, *Rec. VI*, 582; *IX*, 799.
- subterranean, *Rec. I*, 121; *V*, 130.
- surface *v.* subirrigation, *Rec. V*, 690; *VI*, 580.
- surface water available for, in Nebraska, *Rec. XII*, 694.
- system—
 - of Rheims, *Rec. VIII*, 636.
 - San Joaquin Valley, *Rec. VIII*, 91.
- systems in Texas, *Rec. XI*, 94.
- tillage in relation to, *Rec. XII*, 398.
- v.* subsoiling for onions, *Rec. X*, 149.
- tillage of orchards, *Rec. VII*, 131.

Irrigation—Continued.

water—

- analyses, Rec. III, 82; IX, 696, 821.
- analysis, need of, Rec. II, 272.
- automatic division, Rec. X, 1097.
- available, Rec. IX, 1096.
- change and effect of, Rec. V, 541.
- conservation, Rec. XI, 1026.
- economical use, Rec. X, 617.
- for, Rec. V, 690, 1002; VI, 1028; VII, 531, 631; XII, 895.
- in New Mexico, Rec. XII, 834.
- lateral movement in soils, Rec. V, 88.
- lifts, Rec. IX, 597.
- losses by seepage and evaporation, Rec. XII, 895.
- of California, Rec. IV, 120.
- purification, Rec. X, 1031.
- required per ton of dry matter, Rec. X, 748.
- sediment content, Rec. XI, 622.
- supply, Rec. III, 82; V, 541, 690, 691, 1002; VI, 1028.
- waste, Rec. V, 691.
- waters, Rec. IX, 696.
- ways and means, Rec. VI, 346.
- windmill, Rec. VI, 485; IX, 796; XI, 196.
- winter, Rec. VII, 530; XI, 847; XII, 118, 798, 1042.
- work of the agricultural experiment stations, Rec. XI, 195.
- works—
 - extent of injuries by sheep, Rec. XI, 748.
 - on Vaal River, Rec. XI, 598.
 - unprofitable, Rec. X, 697; XI, 294.

Isaria—

farinosa—

- as affected by sulphate of copper, Rec. VI, 437.
- notes, Rec. V, 1037.
- fusiformis*, notes, Rec. VII, 39.
- sphecephila*, notes, Bul. 2, I, 176.
- sp., notes, Rec. II, 303.
- tonicci*, attacking bark beetles, Rec. VIII, 145.
- verans*, notes, Rec. VIII, 144.

Isatis tinctoria, notes, Rec. VI, 140.*Ischnocerus nigricapitatus*, notes, Rec. II, 730.*Ischnodemus folicus*, notes, Rec. II, 80.*Ischnura iwers*, notes, Bul. 2, II, 93.

Island of Jersey, report of official analyst, Rec. VIII, 106.

Isobars—

- and their accuracy, Rec. VIII, 675.
- high-level, Rec. VIII, 676.

Isocratus vulgaris, notes, Rec. XII, 363.

Isomaltose—

- determination, Rec. IV, 612, 983.
- feeding experiments, Rec. IV, 519.
- from fermentation of starch, determination, Rec. III, 831, 924.
- preparation, Rec. IX, 25.
- studies, Rec. VII, 271, 557, 739; XI, 511.

Isomeris arborea globosa, notes, Rec. VI, 114.

Isopods, notes, Rec. X, 168.

Isopyrum biternatum, nitrogen assimilation by, Rec. V, 936.

Isosoma— (See also JOINTWORMS.)

grande, notes, Rec. IV, 204.*hordei*—

- description and treatment, Rec. III, 889.
- early accounts, Rec. IV, 83.
- notes, Rec. VI, 151; VIII, 936; IX, 855.
- orchidarum*, notes, Rec. VII, 880; X, 769.
- sp., notes, Rec. II, 81; X, 866.
- spp., notes, Rec. VI, 654.

tritici—

- description and treatment, Rec. III, 889.
- notes, Rec. II, 80; IV, 667; VI, 151; XI, 558.

Isotherms for a given altitude, Rec. XII, 521.

Isotoma, revision of species, Rec. VII, 699.

Italian paste adulteration, Rec. IX, 1077.

Italy—

- agricultural publications, Rec. IV, 241.
- chemical-agricultural laboratories, Rec. IV, 238.
- Entomological Station in, origin and work, Rec. XI, 475.
- sericultural observatories in, Rec. IV, 239.
- stations for treatment of Phylloxera, Rec. IV, 239.

Ithycerus noveboracensis, notes, Rec. X, 168; XI, 952.

Itrol, uses, Rec. XII, 1095.

Iva—

- axillaris*, notes, Rec. V, 306, 629; VI, 57; VIII, 794.
- xanthiifolia*, notes, Rec. IV, 699; V, 306, 629; VIII, 703.

Ivory—

- ashes, analyses, Rec. V, 164.
- dust, analyses, Rec. V, 165.
- vegetable, analyses, Rec. II, 154.

Ivy—

- Boston, notes, Rec. IV, 656.
- branch, notes, Rec. X, 516.
- canker of, Rec. V, 821.
- ground, Rec. IX, 956.
- ground, root system, Rec. IV, 46.
- Japanese, Rec. VIII, 314.
- Japanese, notes, Rec. IV, 656.
- leaf spot, Rec. VII, 224.
- poison, notes, Rec. III, 521; IV, 47; VI, 440; IX, 330, 527; X, 516.
- poisoning, Rec. IX, 330.
- scale insects, notes, Bul. 2, II, 58; Rec. VI, 440.
- variegated, blight, Rec. VI, 826.

Ixodes, bibliography, Rec. XII, 867.

Ixodes—

- boris*, notes, Rec. III, 501; IV, 749; VIII, 1001.
- hexagonus*, notes, Rec. XI, 593.
- plumbeus*, notes, Rec. XI, 593.
- redurius*, notes, Rec. XI, 593, 891; XII, 973.
- ricinus*, notes, Rec. IV, 354; XI, 173, 588.

Ixodidae sp., notes, Rec. VI, 742.

Ixophorus, revision of genus, Rec. VIII, 748.

Ixtle, notes, Rec. V, 94.

Jack bean—

- analyses, Rec. VIII, 520.
- culture experiments, Rec. VIII, 491.
- meal for steers, Rec. IX, 76, 168.

- Jack pine plains—
 experiments, Rec. II, 357, 493.
 green manures for, Rec. II, 357, 494.
 quality of soil, Rec. II, 357, 493.
 vegetation, Rec. II, 493.
- Jackals, damage to sheep industry, Rec. XII, 830.
- Jackdaws, stomach contents, Rec. XII, 424.
- Jadoo fiber, analyses, Rec. XII, 518, 719, 933.
- Jaffa orange, Rec. V, 1030.
- Jam industry in England, Rec. XII, 1076.
- Jamaica Agricultural Department and Experiment Station, Rec. XI, 898.
- Jambosa domestica*, leaf galls, Rec. XII, 272.
- Jamestown weed. (See DATURA STRAMONIUM.)
- Jams, analyses, Rec. XI, 769.
- Janassa lignicolor*, notes, Rec. II, 64.
- Japan—
 Agricultural and Commercial Department, report, Rec. II, 312; IV, 618.
 agricultural institutions, Rec. II, 310, 312.
 clover—
 analyses, Rec. II, 329.
 as a forage plant, Rec. III, 30.
 broad-leaved, culture experiments, Rec. IX, 41.
 culture experiments, Rec. I, 122; IV, 38, 248, 646; VI, 34, 294, 428; VII, 295; VIII, 401; IX, 41.
 fertilizer experiments, Bul. 2, I, 107.
 for cows, Rec. II, 363.
 worn soils, Rec. II, 164.
 notes, Bul. 2, I, 189; Rec. I, 183; II, 164, 329, 580, 601, 658; III, 30; VII, 116, 296; X, 547; XII, 1037.
 proposed culture experiments, Rec. V, 652.
 current, studies, Rec. X, 419.
 trade, Rec. XII, 98.
- Japix subterraneus*, notes, Rec. VIII, 998.
- Jassidæ. (See LEAF HOPPERS.)
- Jassoidea, species, Rec. X, 372.
- Jassus inimicus*, notes, Rec. II, 80.
- Jatropha curcas*, notes, Rec. XII, 219.
- Java, sugar stations in, Rec. III, 278.
- Java and Ceylon—
 agricultural organization, Rec. XI, 999.
 botanical institutions, Rec. XI, 999.
- Jefferson, Thomas, as a meteorologist, Rec. VIII, 111.
- Jellies, analyses, Rec. XI, 769; XII, 79.
- Jelly rod in oysters, Rec. IV, 72.
- Jensen's treatment. (See HOT WATER.)
- Jerusalem—
 artichokes, Rec. X, 197; XI, 649.
 artichokes—
 analyses, Rec. V, 171; X, 846.
 carbohydrates, Rec. V, 347.
 culture, Rec. IV, 661; IX, 245, 357, 446; X, 846.
 culture experiments, Rec. V, 171; VI, 890; VII, 121; VIII, 402, 687; X, 197, 244.
 for pigs, Rec. XI, 296.
 germination, Rec. II, 456.
 notes, Rec. III, 444; VI, 984; XI, 649; XII, 936.
 variation in composition, Rec. III, 655.
- Jerusalem—Continued.
 corn—
 analyses, Rec. V, 217.
 culture experiments, Rec. III, 703; IV, 36, 39, 251, 645, 725; V, 39, 176; VI, 542, 984; VII, 120, 121, 122, 209; VIII, 308; X, 340, 430.
 notes, Rec. VI, 215.
 Jessamine, false, notes, Rec. X, 516.
 Jesuit's tea plant, notes, Rec. VI, 722.
 Jeweler's family, dietary, Rec. V, 595.
 Jigger flea, notes, Rec. VI, 566; IX, 253.
 Jimson weeds, notes, Rec. IV, 334; VIII, 892; X, 516.
 Job's tear grass, analyses, Rec. VIII, 520.
 Johannesburg, South Africa, Experiment Station and Laboratory, Rec. VIII, 938; IX, 1099.
 Johannson butter extractor, tests, Rec. VI, 477.
 Johnson grass— (See also ANDROPOGON.)
 adaptation, Rec. III, 596.
 analyses, Bul. 2, I, 108; Bul. 2, II, 73; Rec. II, 50; III, 800; V, 64; VI, 403.
 as a forage plant, Rec. III, 29, 890.
 culture experiments, Rec. I, 121; II, 513; IV, 38, 248; VI, 531; VIII, 687.
 eradication, Rec. IX, 142.
 fertilizer experiments, Bul. 2, I, 187.
 hay—
 analyses, Rec. XII, 234.
 composition, Rec. V, 1082.
 digestibility, Rec. VIII, 511.
 for cows, steers, and goats, Rec. V, 1081.
 in Arizona, Rec. IX, 1055.
 notes, Bul. 2, I, 164, 189; Rec. II, 50, 70, 330, 601, 658; IV, 248; V, 679, 680; VI, 294, 715; VII, 296, 765; IX, 142; XI, 423.
 yield, Rec. IV, 825.
- Johnson's mixture, preparation, Rec. V, 592.
- Johore, grasses from, Rec. V, 1028.
- Joint grass, notes, Rec. VIII, 306.
- Jointworms—
 in wheat—
 description and treatment, Rec. III, 889.
 injury, Rec. IV, 667.
 notes, Rec. XII, 1063.
 remedies, Rec. III, 889; XI, 558.
 notes, Rec. II, 80, 81; IV, 83, 204, 667; VI, 151, 654; VII, 880; VIII, 906; IX, 855; X, 769, 866; XI, 558, 862, 955.
- Jönköping, Sweden, Chemical and Seed Control Station, report, Rec. VII, 218, 653; IX, 380, 398.
- Jonquils, source of odor, Rec. XI, 1100.
- Journal of the British Board of Agriculture, Rec. VI, 255.
- Jouvea*—
pilosa, anatomy of leaves, Rec. IX, 328.
straminea, anatomy of leaves, Rec. IX, 328.
- Jowari affected by *Leucania unipuncta*, Rec. XI, 1062.
- Juan Fernandez, cultivated plants of, Rec. V, 1028.
- Subarella*—
daubyi, notes, Rec. X, 372.
 n. gen., notes, Rec. X, 372.

Jubæa spectabilis, analyses of fruit, Rec. V, 437.

Juglandaceæ, embryology, Rec. VI, 195.

Juglans—

californica, notes, Rec. VIII, 230.

cinerea, notes, Rec. II, 663, 741; III, 521; IV, 654; VIII, 230; XI, 549; XII, 163.

cordiformis, notes, Rec. XI, 549.

nigra. (See WALNUT, BLACK.)

regia, notes, Rec. VIII, 230; XI, 549.

rupestris, notes, Rec. VIII, 230.

sieboldi, notes, Rec. XI, 549.

Juices and sirups, filtration through asbestos, Rec. V, 349.

Julus—

guttulatus, notes, Rec. XI, 273.

impressus, notes, Rec. II, 328; IV, 839.

terrestris, notes, Rec. IX, 470.

Jumpers on hops, notes, Rec. V, 236.

Juncodes, notes, Rec. V, 936.

Juncus—

balticus, notes, Rec. II, 321.

bufonius, notes, Rec. II, 321.

effusus, notes, Rec. III, 598.

filiformis—

analyses, Rec. IV, 769, 770.

notes, Rec. IV, 772.

gerardi—

analyses, Rec. IX, 866.

notes, Rec. II, 486; VI, 806.

mertensianus, notes, Rec. II, 321.

nodosus, notes, Rec. VI, 404.

sp., notes, Rec. X, 343.

tenuis, analyses, Rec. VI, 404.

Juncus, destruction, Rec. IX, 455; X, 760.

June beetle— (See also LACHNOSTERNA.)

affecting sugar beets, Rec. XI, 1057.

as affected by irrigation, Rec. IV, 666.

food for cattle, Rec. XI, 174.

contagious diseases, Rec. III, 812; VIII, 507.

destruction by *Botrytis tenella*, Rec. V, 101, 822; VI, 151, 317, 653, 917.

green, notes, Rec. III, 230, 886; V, 992; X, 569.

(See also ALLORHINA.)

in meadows, Rec. XI, 957.

notes, Rec. II, 80, 167, 169, 269, 405, 419, 651, 654, 669; III, 46, 175, 282, 657; IV, 840; V, 62, 101, 498, 681, 685, 790; VI, 151, 567, 653, 654, 740; VII, 593; VIII, 418, 502, 904, 905, 1003; IX, 855, 964; X, 165, 168, 369, 457; XI, 174, 365; XII, 468.

parasites, Rec. XI, 265.

protection of young grafts against, Rec. V, 1100.

remedies, Rec. II, 405; VI, 838; VIII, 68, 70; XI, 762; XII, 997.

Juneberries—

notes, Rec. V, 584.

varieties, Rec. II, 295, 355; III, 788; IV, 728; V, 190; VI, 55; VIII, 889.

Juneberry—

dwarf, culture experiments, Rec. IX, 50.

notes, Rec. IV, 917; V, 586.

June grass—

analyses, Rec. III, 357; IV, 769, 770.

notes, Bul. 2, I, 164; Bul. 2, II, 84.

value for forage in Sweden, Rec. IV, 771.

Juniper—

bark borer, notes, Rec. VI, 312.

berries—

fungi in, Rec. XII, 422.

poisonous properties, Rec. VIII, 290.

notes, Rec. III, 521.

savin, notes, Rec. IV, 655.

trailing, notes, Rec. IV, 655.

Juniperus—

chinensis, notes, Rec. V, 54; VI, 144.

communis—

anatomy of leaves, Rec. IX, 329.

as host of Gymnosporangium, Rec. II, 711

gall formations, Rec. XI, 562.

notes, Rec. III, 521; V, 54; VII, 775.

communis hibernica, notes, Rec. V, 54.

drupacea, notes, Rec. VI, 54.

intermedia, anatomy of leaves, Rec. IX, 329.

knightii, n. sp., notes, Rec. X, 53.

nana, anatomy of leaves, Rec. IX, 329.

oblonga pendula, notes, Rec. V, 54.

occidentalis, notes, Rec. V, 54.

phanicea, bacterial diseases, Rec. X, 972; XI, 167.

sabina, notes, Rec. IV, 655.

virginiana—

as host of Gymnosporangium, Rec. II, 711.

notes, Rec. II, 143; III, 521; IV, 655; V, 54; X, 965.

Junipers of Wyoming, Rec. X, 53.

Jute—

crop—

of Bengal, Rec. XII, 1098.

India, Rec. XII, 399.

culture, Rec. IV, 725.

culture—

experiments, Rec. III, 599; VI, 424; VIII, 492; IX, 41.

in Belgium, Rec. V, 134.

Bengal, Rec. VIII, 125.

California, Rec. V, 577.

the United States, Rec. I, 299; VIII, 774.

Florida, notes, Rec. VII, 954.

varieties, Rec. IV, 411.

waste, analyses, Rec. II, 232, 581; III, 162.

Juvisy, France, Agricultural Climatology Station, Rec. VII, 287; VIII, 29; XI, 821.

Kafir corn, Rec. X, 197.

Kafir corn—

adaptation, Rec. III, 596.

analyses, Bul. 2, II, 124; Rec. II, 117, 340; III, 15; V, 64, 271; VI, 294; IX, 875; XII, 281, 378.

as a forage crop, Rec. XII, 45, 331.

characteristics, culture, and uses, Rec. VIII, 125.

composition at different stages, Rec. IV, 175.

culture—

experiments, Bul. 2, II, 124; Rec. I, 89, 254; II, 270, 337, 601, 643; III, 16, 686, 703; IV, 645, 725; V, 39, 176; VI, 215, 294, 296, 542, 984; VII, 120, 121, 122, 209, 397; VIII, 215, 308, 687, 976; X, 340, 430; XII, 230.

in Florida, Rec. X, 847.

Kafir corn—Continued.

digestibility, Rec. I, 143; X, 983; XII, 872, 898.

feeding value, Rec. XI, 1076.

flour, Rec. VII, 803.

flour, analyses, Rec. V, 64.

fodder, ash analyses, Rec. XI, 277.

for domestic animals, Rec. XI, 1069.

pigs, Rec. XI, 498, 1070; XII, 375, 898.

steers, Rec. XII, 670.

meal for pigs, Rec. VIII, 1010, 1011; XI, 1070.

middlings, analyses, Rec. V, 64.

notes, Bul. 2, I, 189; Bul. 2, II, 23; Rec. V, 623; VIII, 306; XI, 1037; XII, 143, 332, 539, 898, 1031.

poisoning, Rec. X, 694.

products, nomenclature, Rec. XI, 1076.

red, analyses, Rec. VIII, 331.

shredded, analyses, Rec. VIII, 520.

varieties, Rec. I, 143; VIII, 215; XI, 43, 1036.

v. corn—

and wheat for pigs, Rec. VII, 800.

for pigs, Rec. IX, 975.

steers, Rec. IX, 973; XI, 1069.

white—

analyses, Rec. VIII, 331.

stover, analyses, Rec. VIII, 331.

yield per acre, Rec. III, 16.

Kainit—

analyses, Bul. 2, I, 22, 182; Rec. II, 142, 280, 481; III, 8, 168, 244, 299, 444, 536, 791; IV, 25, 787, 902; V, 288, 290, 436, 737, 860, 976, 1103; VI, 396, 401, 402, 797; VII, 109, 111, 112, 295, 669, 940; VIII, 117, 561, 584, 767, 877, 966; IX, 436, 638, 934, 1044; X, 230, 426, 716, 1031; XI, 39, 314, 438, 528, 719, 830; XII, 129, 131, 626, 840, 931.

and sulphur for potato scab, Rec. IX, 654.

Thomas slag, experiments, Rec. VI, 519, 522.

as fertilizer for rye, Rec. VIII, 224.

a preservative for manure, Rec. V, 330; XI, 829.

change in weight on exposure to the air, Rec. XII, 428.

detection of adulteration, Rec. VI, 134.

determination of potash, Rec. VI, 867.

fertilizing value, Rec. IX, 236.

for barley, Rec. X, 536.

corn, Rec. IV, 37; V, 1071.

corn-root worm, Rec. V, 205.

cotton, Rec. V, 174, 332, 976; X, 38.

cutworms and wireworms, Rec. IV, 716.

grapes, Rec. XI, 150.

grasses and pasture land, Rec. V, 710.

meadows, Rec. V, 526.

nematodes in asters, Rec. IV, 930.

onion maggot, Rec. IX, 75.

pear midge, Rec. VI, 148.

potato diseases, Rec. X, 762.

potatoes, Rec. II, 146, 325; III, 34; V, 731; X, 848, 1038.

production of isomorphous compounds, Rec. VIII, 742.

rose chafers, Rec. III, 171.

sweet-potato soil rot, Rec. III, 704.

turnips, Rec. I, 4; IV, 41.

Kainit—Continued.

for wheat, Rec. V, 332.

wireworms, Rec. III, 449; IV, 716; XI, 472.

v. carnallit, Rec. V, 548.

phosphate for cotton, Rec. I, 26.

Kajmak, manufacture and composition, Rec. VIII, 929.

Kakis—

notes, Rec. XI, 252.

varieties, Rec. III, 386.

Kale—

culture, Rec. IX, 357.

culture experiments, Rec. VIII, 407.

dwarf German, analyses, Rec. XI, 883.

effect of transplanting on time of maturity, Rec. XII, 50.

Jersey—

adaptation, Rec. III, 596.

culture experiments, Rec. VIII, 401, 687; X, 245.

notes, Rec. V, 577; XII, 936.

notes, Rec. XI, 354; XII, 328.

Scotch, notes, Rec. V, 881.

sea—

culture, Rec. VIII, 407; IX, 357.

varieties, Rec. IV, 650.

varieties, Rec. I, 89; V, 189; VI, 55; VII, 213, 405; VIII, 889, 977; IX, 350; X, 238, 245; XI, 250, 632.

v. turnips for forage, Rec. IX, 132.

Kalmar, Sweden, Chemical and Seed Control Station, report, Rec. V, 1025; VII, 653; IX, 380.

Kalmia—

angustifolia, notes, Rec. X, 516; XI, 271.

latifolia, notes, Rec. IV, 655; X, 516.

Kalmias, culture and varieties, Rec. IX, 247.

Kanaff, culture, Rec. III, 928.

Kangaroo rats, notes, Rec. II, 258; III, 184.

Kansas—

fungi, new species, Rec. I, 169.

semiarid, Rec. VII, 287.

stock melon, culture experiments, Rec. VII, 121.

Kaolin in agricultural soils, determination, Rec. III, 831.

Karyokinesis—

demonstration, Rec. X, 321.

in *Equisetum*, Rec. VIII, 957.

plants, Rec. VII, 140.

the *Uredineæ*, Rec. VII, 188.

Katydid, meadow, notes, Rec. IV, 839.

Katyids, notes, Rec. III, 309.

Kazan, Russia, Bacteriological Station, report, Rec. XI, 195.

Kei, or Kafir, apple, Rec. V, 586; VII, 771; XI, 454.

"Keimplasma," theory of heredity, Rec. V, 345.

Kelp—

analyses, Rec. IV, 715.

notes, Rec. IV, 715.

Kennebec River, ice in, Rec. IX, 30.

Kentrophyllum lanatum, notes, Rec. VI, 145.

Kentucky—

blue grass—

analyses, Bul. 2, II, 38; Rec. III, 158, 401; IV, 646, 769, 770; V, 596; VI, 404, 752.

as a forage plant, Rec. III, 28, 29.

Kentucky—Continued.

blue grass—continued.

- as a forage plant in Sweden, *Rec. IV*, 771.
- chemical study, *Rec. II*, 218.
- culture experiments, *Rec. I*, 282; *II*, 580; *III*, 158; *IV*, 38, 248, 925; *V*, 171; *VI*, 290, 294, 296, 531.
- effect of fertilizers, *Rec. II*, 633.
- for lawns, *Rec. III*, 532.
- meadows and pastures, *Rec. II*, 238.
- notes, *Bul. 2*, *I*, 164; *Bul. 2*, *II*, 84; *Rec. I*, 80; *II*, 238, 271, 320, 601, 658; *V*, 625; *VI*, 215, 542; *VII*, 296, 384; *XI*, 154.
- seeds, green, vitality, *Rec. II*, 632.
- coffee tree, notes, *Rec. III*, 522; *X*, 516.
- marls, analyses, *Rec. VI*, 283.

Kephir—

- bacteriology, *Rec. VIII*, 993; *IX*, 185, 290.
- chemical examination, *Rec. VIII*, 169.
- for ripening cream, *Rec. IX*, 795.
- history and preparation, *Rec. VIII*, 831, 1014.
- milk, description, *Rec. V*, 1067.

Keratitis—

- contagious, treatment, *Rec. XI*, 1091.
- notes, *Rec. X*, 296; *XI*, 393; *XII*, 488.

Kermes—

- concinellus*, notes, *Rec. X*, 372.
- galliformis*, notes, *Rec. IX*, 662.
- pubescens*, notes, *Rec. X*, 372.

Kerowater machine, description, *Rec. XI*, 172.

Kerosene—

- analyses, *Rec. VII*, 463.
- and milk emulsion, preparation, *Rec. III*, 291.
- pyrethrum emulsion, preparation, *Rec. III*, 291, 327.
- sulphate of copper combined, for plum wart, *Rec. II*, 408.
- as an insecticide, *Rec. II*, 71, 720; *VIII*, 321; *IX*, 1066; *XI*, 66, 262.
- attachment—
 - for knapsack pumps, *Rec. VI*, 442.
 - knapsack sprayers, *Rec. VII*, 230; *VIII*, 414.
 - spraying pumps, *Rec. VI*, 442, 910, 1008; *VIII*, 414.
- effect—
 - on foliage, *Bul. 2*, *I*, 145.
 - fruit trees, *Rec. XII*, 165.
- emulsion—
 - and resin wash for San José scale, *Rec. VII*, 514.
 - tobacco water for green aphids, *Rec. I*, 294.
- as an insecticide, *Bul. 2*, *II*, 87; *Rec. I*, 9; *II*, 63, 71, 143, 330, 416, 718, 720, 730; *III*, 53; *IV*, 475, 932; *V*, 62, 63, 64; *VII*, 44; *XII*, 578.
- as a sheep dip, *Rec. II*, 333.
- experiments, *Rec. III*, 327.
- for animal parasites, *Rec. II*, 333; *III*, 291, 501; *IV*, 171; *V*, 205, 517, 901; *VIII*, 505.
- aphids, woolly, *Rec. I*, 294.
- asparagus beetle, *Rec. III*, 298.
- bark-louse, oyster-shell, *Rec. VII*, 592.
- cabbage butterfly, Southern, *Rec. I*, 12.

Kerosene—Continued.

emulsion—continued.

- for cabbage plant lice, *Rec. IV*, 58.
- cabbage plutella, *Rec. III*, 359.
- cherry slug, *Rec. III*, 291; *IV*, 416.
- chinch bug, false, *Rec. I*, 12.
- chinch bugs, *Rec. II*, 720.
- clover mite, *Rec. IX*, 260.
- corn root worm, *Rec. V*, 205.
- currant bug, *Rec. III*, 291.
- eggs of currant sawfly, *Rec. IV*, 416.
- elm aphids, *Rec. IX*, 1065.
- Empoasca mali* on potato vines, *Rec. IX*, 68.
- euonymus scale, *Rec. VI*, 650.
- European cabbage worm, *Rec. I*, 11.
- fla-beetles, *Rec. IV*, 58.
- grasshoppers, *Rec. VI*, 441.
- hog louse, *Rec. I*, 213.
- hollyhock bug, *Rec. III*, 291.
- hop lice, *Rec. V*, 206.
- horn fly on cattle, *Rec. V*, 205; *VIII*, 505.
- lice on stock, *Rec. III*, 291; *IV*, 171.
- melon plant louse, *Rec. IX*, 469.
- mosquito blight, *Rec. VII*, 593.
- oak loopers, *Rec. III*, 359.
- onion thrips, *Rec. X*, 270.
- parasites of domestic animals, *Rec. II*, 333.
- pea weevil, *Rec. III*, 291.
- peach aphids, black, *Rec. IX*, 470; *X*, 660.
- peach scale, *Rec. VI*, 650.
- pear leaf blister, mite, *Rec. IV*, 667; *V*, 883.
- pear-tree psylla, *Rec. III*, 864; *IV*, 473; *VIII*, 142.
- plant lice, *Rec. I*, 45; *III*, 222, 291, 870; *IV*, 173; *V*, 991; *XII*, 664.
- plum curculio, *Rec. IV*, 57.
- plum scale, *Rec. VI*, 1004; *VIII*, 143; *IX*, 71.
- rose chafer, *Rec. III*, 171, 291; *V*, 403, 686.
- San José scale, *Rec. V*, 1088; *IX*, 1066.
- sharpshooter, glassy-winged, *Rec. IV*, 668.
- sheep scab, *Rec. IV*, 171.
- sheep ticks, *Rec. III*, 291; *V*, 901.
- sorghum louse, *Bul. 2*, *I*, 30.
- squash borers, *Rec. IV*, 56.
- squash bug, *Rec. I*, 11; *III*, 291.
- sugar-beet webworm, *Rec. V*, 62.
- wheat louse, *Rec. II*, 164.
- white pine chermes, *Rec. X*, 1065.
- wireworms, *Rec. III*, 448.
- modification, *Rec. XII*, 581.
- preparation and use, *Rec. II*, 143, 164, 659, 747; *III*, 223, 290, 298, 327, 889; *IV*, 42, 173, 840; *VI*, 838; *VII*, 140, 231, 593; *VIII*, 240, 242, 505; *IX*, 471, 676; *X*, 458; *XI*, 174, 273, 371, 957; *XII*, 869, 975.
- v. quassia* wash, *Rec. IV*, 284.
- with ammoniacal copper carbonate for apples, *Rec. IV*, 42.
- arsenites, *Rec. III*, 175.

Kerosene—Continued.

emulsion—continued.

with London purple for elm leaf beetle, *Rec. III*, 415.

pyrethrum for cotton worms, *Rec. II*, 318.

extract of pyrethrum for rose chafer, *Rec. III*, 171.

for chinch bugs, *Bul. 2*, *I*, 176.

hornflies, *Rec. V*, 63; *VIII*, 505.

mosquitoes, *Rec. IV*, 372; *VI*, 440, 652; *X*, 766.

pear leaf blister, *Rec. V*, 883.

plant enemies, *Rec. VII*, 316.

plant lice, *Rec. II*, 599.

plum black knot, *Rec. I*, 83; *V*, 309.

pourridie and white grub, *Rec. VI*, 838.

San José scale, *Rec. X*, 468, 771, 975; *XI*, 473, 474, 654, 760, 762.

scale insects, *Rec. XII*, 68.

spiders, red, *Rec. III*, 870; *IX*, 860; *X*, 270.

strawberry weevil, *Rec. V*, 791.

tree borers, *Rec. III*, 812.

wireworms, *Rec. III*, 448.

(See also different insects, remedies.)

in treatment of pediculosis capitis, *Rec. IX*, 676.

ointment as an insecticide, *Rec. II*, 63.

paste for plum black knot, *Rec. III*, 865.

preparation and use, *Rec. V*, 206.

shale, ash analyses, *Rec. XII*, 39.

soap for cotton worms, *Rec. II*, 318.

spraying apparatus, *Rec. VII*, 592.

use during winter, *Rec. VII*, 595.

v. quassia for hop lice, *Rec. IV*, 84.

water, preparation and use, *Rec. XI*, 174.

Kestrel, notes, *Rec. IX*, 530.

Kew Observatory, change, *Rec. XII*, 119.

Khandesh Experimental Farm, India, report, *Rec. IV*, 521.

Kharkov, Russia, Bacteriological Station, report, *Rec. XI*, 194.

Kickxia africana, botany of, *Rec. VII*, 530.

Kidney—

analyses, *Rec. IV*, 59.

bean. (See BEANS, KIDNEY.)

spot of calves, *Rec. XII*, 993.

vetch. (See VETCH, KIDNEY; ANTHYLLIS.)

worm, *Rec. IX*, 274.

Kidneys—

pathology during pulmonary tuberculosis, *Rec. XII*, 597.

tuberculosis of, *Rec. V*, 1033.

Kiel, Germany, Experiment Station, reports, *Rec. III*, 260; *V*, 353; *VIII*, 529; *XII*, 198.

Kieserite, analyses, *Rec. VIII*, 563.

Kiln for drying grain, *Rec. VII*, 72.

Kiln-dried feed, analyses, *Rec. XII*, 378.

Kinematics of machinery, manual, *Rec. XI*, 798.

King birds, notes, *Rec. XI*, 271.

King-devil weed, notes, *Rec. X*, 826.

Kinnikinnik, notes, *Rec. III*, 522.

"Kissing bugs"—

and spider bites, *Rec. XI*, 561.

notes, *Rec. XII*, 160, 663.

Kitchen—

and table wastes, *Rec. IX*, 899.

gardening, *Rec. VII*, 688.

Kite—

and balloon station near Berlin, *Rec. XII*, 118.

telephone, *Rec. X*, 419.

ascensions at Blue Hill, *Rec. IX*, 531, 816.

as used by Espy, *Rec. IX*, 424.

club, Franklin, *Rec. IX*, 424.

development by European scientists, *Rec. IX*, 30.

experiments, *Rec. X*, 1018; *XII*, 920.

experiments—

at Blue Hill Observatory, Massachusetts, *Rec. X*, 419.

San Francisco, *Rec. VIII*, 675.

Weather Bureau, *Rec. VIII*, 475.

for stranded vessels, *Rec. IX*, 424.

in France, *Rec. IX*, 814.

meteorograph, construction and operation, *Rec. XI*, 821.

observations—

at Bayonne, N. J., *Rec. XII*, 119, 1015.

by the Weather Bureau in 1898, *Rec. XI*, 621.

problem, *Rec. IX*, 424.

records in New Jersey, *Rec. XI*, 430.

use, *Rec. XII*, 521.

used in 1822 by Fisher, *Rec. IX*, 424.

work in Madeira, *Rec. X*, 1018.

Kiteflyers, prize for, *Rec. VIII*, 676.

Kiteflying—

scientific, *Rec. VIII*, 33.

use of wire, *Rec. IX*, 424.

and meteorological research, *Rec. XI*, 432.

Archibald on, *Rec. IX*, 424.

at the Chicago Conference, *Rec. IX*, 531.

balloons and clouds, *Rec. VIII*, 475.

for exploration of the air, *Rec. X*, 125.

in America and Europe, *Rec. IX*, 424.

a thundercloud, *Rec. X*, 325.

meteorology, *Rec. VIII*, 476, 676.

mechanics and equilibrium, *Rec. IX*, 424, 427, 531.

spool, *Rec. XI*, 429.

temperature observations, *Rec. X*, 325.

with rocket signals, *Rec. IX*, 424.

Kitten, bot on, notes, *Rec. IV*, 173.

Kjeldahl method—

distilling apparatus for, *Rec. V*, 127.

distilling flasks, *Rec. III*, 633.

Kleeman pasteurizing apparatus, *Rec. V*, 656.

Kleinhof-Tapiau, Experiment Station and School for Dairying, *Rec. VII*, 718; *IX*, 291; *X*, 384.

Knapsack sprayers, kerosene attachment, *Rec. VII*, 230; *VIII*, 414.

Knee grass, analyses, *Rec. V*, 64.

Kniphofia aoides, notes, *Rec. IV*, 654.

Kniphofia buds, notes, *Rec. VI*, 300.

Kniphofias, culture, *Rec. IX*, 451.

Knob grass, root system, *Rec. IV*, 46.

Knotgrass—

culture experiments, *Rec. X*, 244.

eradication, *Rec. IX*, 142.

notes, *Rec. V*, 497; *X*, 343.

Knotweed—

analyses, *Rec. VI*, 404.

bushy, notes, *Rec. X*, 343.

culture, experiments, *Rec. VI*, 984.

giant, notes, *Rec. VI*, 889.

notes, *Rec. III*, 598; *V*, 497.

Knotweed—Continued.

sachaline, notes, Rec. VI, 732, 808, 889; VII, 407.

Knotweeds as ornamentals, Rec. VIII, 986.

Kochia—

aphylla, culture, Rec. VIII, 596.

planifolia, notes, Rec. X, 546.

villosa—

as a fodder plant, Rec. VIII, 596.

notes, Rec. X, 546.

Koch's test. (See TUBERCULIN and TUBERCULOSIS.)

Kœbelia californica, n. gen. and n. sp., Rec. IX, 470.

Kœbelinæ, n. subfamily, Rec. IX, 470.

Kœleria cristata, notes, Rec. I, 168; II, 321; VI, 404; VIII, 780.

Kohl-rabi—

albuminoid nitrogen in, Rec. II, 341.

analyses, Rec. II, 341; III, 859; IX, 806; X, 839.

cabbage grafted on, Rec. V, 1089.

culture, Rec. IX, 357.

culture experiments, Rec. IV, 39; VIII, 313, 407.

disease, Rec. VII, 39.

fertilizer experiments, Rec. VII, 504; XI, 646, 842, 851.

mineral content, Rec. IX, 1028.

notes, Rec. X, 547.

Phoma napobrassicæ on, Rec. VI, 737.

varieties, Bul. 2, II, 89; VII, 213, 405; IX, 350; XI, 250, 631, 842.

Koji feed, analyses, Rec. VII, 702.

Kola—

as a food protector, Rec. XI, 970.

effect on muscular work, Rec. XI, 79.

nut—

African, Rec. IX, 581.

analyses, Rec. IX, 129; XI, 249.

for horses, Rec. X, 181.

notes, Rec. VIII, 231.

studies, Rec. VII, 94, 148, 248, 586.

Kongo Free State, Experiment Station and Botanic Garden, establishment in, Rec. XI, 1000.

Königsberg, Germany, Experiment Station, Rec. V, 131.

Königsberg, Germany, Experiment Station, reports, Rec. III, 262; V, 131.

Koslin, Germany, Agricultural Chemical Experiment and Seed Control Station, report, Rec. VII, 341; XI, 55; XII, 1051.

Koumiss—

analysis, Rec. VII, 338.

inoculation in manufacture of, Rec. VI, 847. notes, Rec. IV, 317.

preparation, Rec. IV, 519; V, 1067.

sterilized and pasteurized, Rec. V, 361.

Kraal manures, analyses, Rec. XI, 526.

Kreolin, preparation and use, Rec. V, 684.

Kristianstad, Sweden, Seed Control Station, report, Rec. VIII, 58.

Kröhnke milk filter, Rec. XI, 284.

Krottnaurer's Blankenburg fertilizer, analyses and fertilizing value, Rec. XII, 624.

Krugia, n. gen., notes, Rec. V, 127.

"Krutjord" from Martebro marsh, culture experiments, Rec. IV, 693.

Kuhnistera sp., notes, Rec. X, 343.

Kunstrahm, preparation, Rec. V, 1066.

Kuro Siro v. chinooks, Rec. X, 124.

"Kuro Siwo" effect on temperature of Pacific Northwest, Rec. XI, 622.

Kvass, manufacture, Rec. VIII, 521.

"La maladie d'Oleron," Rec. IX, 1057.

Labels for use in orchard and garden, Rec. V, 402, 875.

Labiatæ, tuberous, notes, Rec. V, 820.

Labor and wages—

farm—

in Ontario, Rec. VI, 217.

United States, Rec. III, 906.

in Wyoming, Rec. IV, 956.

Laboratories—

analytical, in Belgium, Rec. V, 550, 551, 552, 553.

chemical-agricultural, in Italy, Rec. IV, 238.

chemical, best source of electricity for, Rec. IV, 613.

food—

in connection with experiment stations, Rec. V, 1.

suggestions for establishment, Rec. V, 416.

lighting, Rec. X, 1005.

State analytical, Rec. XI, 619.

use of centrifuge in, Rec. IV, 221; V, 817.

Laboratory—

air, effect on nitrobacteria, Rec. XI, 125.

and experiment station at Johannesburg, description, Rec. IX, 1099.

apparatus, Rec. V, 457, 922; VI, 504, 691; VII, 18, 366, 559, 653, 745; VIII, 378, 471, 862; IX, 26, 323, 807; X, 20, 322, 920.

apparatus, heating by carbureted air, Rec. X, 1005.

at Bernburg Station, Rec. V, 750.

biochemical, handbook, Rec. VIII, 26; IX, 116. chemical—

of Agricultural Institute at Alnarp, report, Rec. VIII, 484.

Altona, extracts from report, Rec. X, 492.

University of St. Petersburg, Rec. VI, 615.

ventilation, Rec. V, 539.

directions for beginners in bacteriology, Rec. X, 520.

food, in Nuremberg, report, Rec. VIII, 530; IX, 991.

for applied chemistry, University of Munich, Rec. VIII, 863.

grinder, new, Rec. VIII, 862.

manual, Rec. VIII, 287.

manual for agricultural and commercial products, Rec. IX, 1024.

methods—

and apparatus, new, Rec. XI, 714.

in horticulture, Rec. VIII, 556.

of teaching agriculture, Rec. VIII, 555; X, 712.

mill for sugar cane, Rec. VII, 559.

of zymotechnics at Rome, Italy, Rec. IV, 238.

provincial, of Roulers, report, Rec. VII, 745.

records for veterinarians, Rec. X, 793.

State, at Antwerp, reports, Rec. VII, 745; VIII, 378.

- Laboratory—Continued.
 stirrer, *Rec. IX*, 116.
 work in horticulture, *Rec. IX*, 297.
- Laborers, farm, wages in Denmark, *Rec. V*, 657.
- Laburnum—
 acquisition of nitrogen by, *Rec. III*, 337.
 leaves as food for animals, *Rec. V*, 1030.
 notes, *Rec. IV*, 654.
 varieties, *Rec. VIII*, 986.
- Lac insects, new, *Rec. VI*, 438, 837.
- Lac case—
 and tyrosinase in mushrooms, separation, *Rec. VIII*, 743.
 chemical composition, *Rec. IX*, 417.
 in fungi, *Rec. VII*, 468; *VIII*, 290.
 plants, *Rec. VII*, 185, 279.
 oxidation of organic compounds by, *Rec. VII*, 921; *VIII*, 285.
 rôle in germination of seeds, *Rec. VII*, 747.
- Lace curtains, insect enemy, *Rec. IV*, 852.
- Lacewing fly—
 destroying pear-tree psylla, *Rec. VII*, 313; *VIII*, 142.
 notes, *Rec. III*, 175; *V*, 409; *VI*, 652, 741; *IX*, 370.
- Lacewings, notes, *Rec. IV*, 417; *V*, 499; *X*, 768.
- Lachista præmaturella*, notes, *Rec. III*, 813.
- Lachnidium acridorium*, parasitic on crickets
Rec. V, 1100.
- Lachninae in the valley of the Vistula, *Rec. VI*, 837.
- Lachnosterna*— (*See also* JUNE BEETLE.)
arcuata, notes, *Rec. IV*, 284; *XI*, 365.
dubia, notes, *Rec. IV*, 284, 475.
fusca, notes, *Rec. II*, 167, 405, 419, 654, 669; *III*, 46, 175; *IV*, 284, 475, 840; *VI*, 740; *VIII*, 905; *X*, 1064.
grandis, notes, *Rec. IV*, 284.
hirticula, notes, *Rec. X*, 1064.
impressa, notes, *Rec. VII*, 593.
insperata, notes, *Rec. IV*, 284.
rugosa, notes, *Rec. IV*, 284; *IX*, 150.
 sp. in Vermont, *Rec. IV*, 474.
 sp. injuring wheat, *Rec. VI*, 1003.
 sp., notes, *Rec. II*, 80; *V*, 101; *VIII*, 418, 904; *X*, 165, 369, 1061.
 spp., notes, *Rec. VI*, 151; *IX*, 855, 964.
tristi, notes, *Rec. VIII*, 905; *IX*, 150.
- Lachnosterna*, parasite, *Rec. XI*, 265.
- Lachnus*—
abieticola, notes, *Rec. XI*, 657.
agilis, notes, *Rec. IX*, 965.
bogdonovi, notes, *Rec. IX*, 965.
dentatus, notes, *Rec. II*, 253.
farinosus, notes, *Rec. IX*, 965.
hyalinus, notes, *Rec. IX*, 965.
juniperi, notes, *Rec. IX*, 965.
maculosus, notes, *Rec. XI*, 657.
nudus, notes, *Rec. IX*, 965.
persicæ, notes, *Rec. XI*, 657.
picæ, notes, *Rec. XI*, 562, 657.
piceicola, notes, *Rec. IX*, 965.
pineti, notes, *Rec. IX*, 965.
pinens, notes, *Rec. IX*, 965.
pini, notes, *Rec. II*, 253; *X*, 165.
platanicola, notes, *Rec. II*, 673.
pyri, notes, *Rec. XI*, 957.
rosæ, notes, *Rec. XI*, 657.
- Lachnus*—Continued.
 sp., notes, *Rec. X*, 164.
 sp., on firs, *Rec. VII*, 968.
strobi, notes, *Rec. II*, 253; *III*, 176.
teniatius, notes, *Rec. IX*, 965.
- Lacmoid—
 as an indicator, *Rec. XI*, 311.
 purification, *Rec. III*, 749.
- Lactanalyt, a new milk tester, *Rec. VIII*, 89.
- Lactarius*—
deliciosus, notes, *Rec. X*, 551.
piperatus, insoluble carbohydrates in, *Rec. VI*, 110.
turpis, notes, *Rec. VIII*, 470.
- Lactate factory waste, analyses, *Rec. IV*, 26.
- Lactation period—
 effect on milk, butter, and cheese production.
 (*See* MILK; BUTTER; CHEESE.)
 length, *Rec. III*, 424.
- Lactal glands—
 effect of exercise on productiveness, *Rec. IV*, 986.
 immunity to bacteria, *Rec. XI*, 995.
- Lacteo-vituline for calves, *Rec. IX*, 867.
- Lactic acid—
 bacillus, pathogenic action, *Rec. IV*, 985.
 bacteria—
 effect on cheese ripening, *Rec. X*, 592, 789.
 function in ripening cheese, *Rec. XI*, 787.
 in cheese, *Rec. XII*, 787.
 ensiled beet chips, *Rec. XI*, 714.
 production of acetic acid in milk, *Rec. XII*, 786.
 relation to peptonizing, *Rec. VII*, 659.
 studies, *Rec. XII*, 389.
 variability, *Rec. XII*, 683.
 variation in relation to fermentative power, *Rec. XII*, 485.
 determination, *Rec. IX*, 808; *X*, 1005; *XI*, 1006.
 fermentation, investigations, *Rec. XII*, 90.
 ferments—
 medium, *Rec. X*, 189.
 of albuminoid decomposition in Emmen-thaler cheese, *Rec. XI*, 981.
 formation in the body, *Rec. III*, 928.
 forming vibrios, *Rec. VII*, 278.
 in digestion fluids, detection, *Rec. VII*, 463.
 milk, determination, *Rec. IV*, 316, 389.
 wines, *Rec. VIII*, 562; *X*, 1017.
 yeasts, studies, *Rec. IX*, 628.
- Lactic ferment in cheese making, *Rec. IX*, 587.
- Lactic fermentation—
 as related to casein, *Rec. VII*, 158.
 influence of mineral poisons on, *Rec. V*, 734.
 investigations, *Rec. VII*, 338.
 relation of phosphates and casein, *Rec. IV*, 987; *V*, 247, 260, 656, 814, 1045.
- Lactobutyrometer—
 Demichel, *Rec. IV*, 316.
 new, *Rec. VII*, 272.
- Lactocrite milk test, *Rec. II*, 324; *III*, 193; *IV*, 316.
- Lactola, an artificial product of skim milk, *Rec. VI*, 484.
- Lactometer—
 directions for use, *Rec. V*, 82.
 use, *Rec. IV*, 194, 750.

- Lactoscope—
 Berg's, for use in dairies, *Rec. VI*, 475.
 test for milk, *Rec. II*, 203.
- Lactose—
 and glucose in peptones, *Rec. VII*, 366.
 determination in human milk, *Rec. VIII*, 105, 284.
 in animals, *Rec. XII*, 177.
 milk, determination, *Rec. IV*, 987; *V*, 260; *IX*, 225.
 reactions for distinguishing from glucose, *Rec. VII*, 835.
 solutions as affected by lead, *Rec. X*, 117.
- Lactuca*—
canadensis—
 analyses, *Rec. III*, 629.
 notes, *Rec. VII*, 131.
leucophæa, analyses, *Rec. III*, 629.
ludoviciana, notes, *Rec. VII*, 131.
morssii, notes, *Rec. X*, 647.
scariola— (*See also* PRICKLY LETTUCE.)
 notes, *Rec. IV*, 414; *VI*, 224, 551, 640; *VII*, 135, 588; *VIII*, 794; *XII*, 350.
 parasite, *Rec. IV*, 414.
 poisonous to stock, *Rec. XI*, 1057.
- Lady beetle, 15-spotted, notes, *Rec. IV*, 417, 839.
- Ladybird—
 aquatic, notes, *Rec. I*, 292.
 Australian, as a parasite on scale insects, *Rec. IV*, 373; *XII*, 1058.
 blood-red, notes, *Rec. VI*, 741; *V*, 409.
 boreal, notes, *Rec. III*, 309; *V*, 404; *VI*, 833.
 brown-necked, notes, *Rec. VI*, 741.
 convergent, notes, *Rec. IV*, 58.
 9-spotted, notes, *Rec. IV*, 58.
 northern, *Rec. XI*, 272.
 10-spotted, notes, *Rec. IV*, 58.
 20-spotted, notes, *Rec. I*, 292.
 two-stabbed, notes, *Rec. V*, 409.
- Ladybirds—
 destroying—
 black scale, *Rec. III*, 546; *VI*, 742.
Icerya purchasi, *Rec. XI*, 477.
 pear-tree psylla, *Rec. VII*, 313; *VIII*, 142.
 plant lice, *Rec. VIII*, 507.
 notes, *Rec. III*, 175, 876; *V*, 499; *VI*, 313, 741; *VII*, 595, 792; *VIII*, 906; *X*, 768; *XII*, 861, 869.
- Lady slippers, notes, *Rec. IX*, 358; *X*, 516.
- Lady's mantle, analyses, *Rec. IV*, 971, 972.
- Læmophæus pusillus*, notes, *Rec. IX*, 66; *XII*, 580.
- Læstidia bidwellii*. (*See* GRAPE BLACK ROT.)
- Lagoo—
crispata, notes, *Rec. III*, 54; *IV*, 838.
opercularis, notes, *Rec. II*, 101.
- Lagomyidæ in Idaho, *Rec. III*, 184.
- Lahaina sugar cane, *Rec. VI*, 722.
- Lake—
 commerce and insurance, *Rec. XII*, 1016.
 level, oscillations, *Rec. XI*, 620; *XII*, 1015.
 levels and wind phenomena, *Rec. XII*, 521.
 mud, fertilizing value, *Rec. IX*, 543.
 water—
 analyses, *Rec. IV*, 120.
 temperature, *Rec. X*, 325.
- Lake Erie, level as affected by wind, *Rec. XII*, 119.
- Lakes— (*See also* GREAT LAKES.)
 effect on temperature of land *Rec. XII*, 831.
- Lakes—Continued.
 fresh, increase and decrease, *Rec. X*, 419.
 of San Joaquin Valley, California, *Rec. I*, 10.
- Lakeside corn and oat feed, analyses, *Rec. XI*, 279.
- Laktina, a substitute for human milk, *Rec. V*, 1067.
- Lamansky-Nobel viscosimeter, *Rec. X*, 413.
- Lambs— (*See also* SHEEP.)
 alfalfa for, *Rec. VIII*, 1008; *XI*, 666.
 arthritis, *Rec. VIII*, 159.
 breeding tests, *Rec. VIII*, 328.
 Cleveland flax meal *v.* linseed meal for, *Rec. XI*, 566.
 clover hay for, *Rec. VIII*, 1008; *XI*, 666.
 congestion of kidneys, *Rec. XII*, 685.
- corn—
 and peas for, *Rec. VIII*, 714; *IX*, 578.
 meal *v.* oats and bran for, *Rec. VIII*, 714.
 silage *v.* mangel-wurzels for, *Rec. VII*, 240; *IX*, 481.
v. peas for, *Rec. XI*, 666; *XII*, 74.
- cotton-seed meal—
 for, *Rec. V*, 502.
v. linseed meal for, *Rec. IV*, 261.
 dry *v.* succulent rations for, *Rec. VIII*, 715.
- fattening, *Rec. VIII*, 251; *XII*, 673.
- fattening—
 for British markets, *Rec. III*, 496; *IV*, 610; *V*, 632; *VI*, 465.
 market, *Rec. VI*, 661; *IX*, 579.
 in winter, *Rec. IV*, 67; *XI*, 179, 877.
 profitable, *Rec. VIII*, 251.
 feed required per pound of gain, *Rec. II*, 436; *VIII*, 252.
- feeding—
 and marketing, *Rec. V*, 503.
 experiments, *Bul. 2, I*, 101, 167; *Rec. I*, 273; *II*, 231, 436; *III*, 129, 155, 496, 872; *IV*, 67, 185, 186, 260, 261, 571, 572, 610, 611; *V*, 1084; *VI*, 239, 328, 329, 465, 468, 469, 660, 922; *VII*, 239, 887, 986; *VIII*, 332, 714, 720, 924, 1008; *IX*, 84, 271, 374, 577, 578, 579, 972, 975, 977; *X*, 184, 379, 575, 773, 774, 775; *XI*, 179, 379, 666, 1069.
 for early market, *Rec. X*, 775.
 grain before weaning, *Rec. IV*, 185, 260; *V*, 502; *VI*, 661; *VIII*, 332, 720; *X*, 774, 775.
 grain before and after weaning, *Rec. XI*, 567.
 grain *v.* no grain, *Rec. II*, 436; *IV*, 571.
 grain *v.* roots, *Rec. VI*, 660.
 in winter, *Rec. IV*, 356, 610; *V*, 199.
 qualities as influenced by breeding, *Rec. IX*, 577.
 shorn and unshorn in winter, *Rec. III*, 496; *IV*, 610; *V*, 632; *VIII*, 329.
- linseed meal—
 for, *Rec. V*, 502.
v. Cleveland flax meal for, *Rec. XI*, 566.
 cotton-seed meal for, *Rec. IV*, 261.
 mangel-wurzels for, *Rec. IV*, 356; *XI*, 181.
 manure from, *Rec. IV*, 68.
 metabolism experiments, *Rec. IX*, 1079.
 milk for, *Rec. II*, 436.
 molasses for, *Rec. X*, 379; *XII*, 583.

Lambs—Continued.

- parasitic gastro-enteritis, *Rec. IX*, 189.
 peanut cake *v.* sesame cake for, *Rec. III*, 266;
V, 227; *VII*, 524.
 rape for, *Rec. V*, 633; *VI*, 468; *IX*, 374; *X*, 773.
 rations for, *Rec. V*, 195, 1083; *VI*, 465, 661, 752.
 roots—

- v.* potatoes for, *Rec. XI*, 181.
 silage for, *Rec. III*, 872; *V*, 688; *VII*,
 240; *IX*, 481.

- screenings for, *Rec. V*, 1084.
 sesame cake for, *Rec. VII*, 523.
 shearing before fattening, *Rec. VIII*, 329.
 silage—
 for, *Rec. II*, 232; *IV*, 256.
 v. mixed hay for, *Rec. IV*, 572.
 skim milk for, *Rec. V*, 823; *VI*, 922.
 soiling experiments, *Rec. II*, 437.
 stomach worm in, *Rec. XII*, 788.
 sugar beets *v.* silage for, *Rec. III*, 872.
v. yearlings, fattening, *Rec. XII*, 673.
 wheat screenings and oil cake *v.* wheat and
 oil cake for, *Rec. VIII*, 251.
 wide *v.* narrow rations for, *Rec. IV*, 572; *VIII*,
 251.

Lamb's quarters. (*See* PIGWEED.)Lameness in horses and mules, *Rec. VIII*, 159.*Laminaria*—

- digitata*—
 analyses, *Rec. IV*, 715; *VI*, 630.
 notes, *Rec. IV*, 715.
saccharina, notes, *Rec. IV*, 715.

Laminitis, treatment, *Rec. X*, 597; *XI*, 394.*Lamium amplexicaule*—

- notes, *Rec. V*, 398.
 root system, *Rec. IV*, 46.

Lampronia rubicella, notes, *Rec. V*, 740; *VI*, 65;
XI, 264; *XII*, 1062.*Lampronia frigida*, notes, *Rec. VI*, 63.Lamps, incandescent, in electro-horticulture,
Rec. VIII, 268.*Lampyrus splendidula*, notes, *Rec. VI*, 742.

Land—

- amount required to soil a cow, *Rec. V*, 644.
 analyses, *Rec. VIII*, 563.
 areas, estimation, *Rec. XII*, 399.
 clearing, *Rec. IX*, 295.
 clearing in the Sierra foothills, *Rec. V*, 606.
 clover. (*See* ANTHYLLIS VULNERARIA.)
 economic associations in Denmark, *Rec. IX*,
 1098.
 fall plowing as affected by frost, *Rec. XI*, 44.
 fertility, *Rec. IX*, 123.
 leveler, test, *Rec. XI*, 1037.
 level *v.* bed culture, *Rec. X*, 1021.
 plaster. (*See* GYPSEUM.)
 swamp, fertilizer experiments on, *Rec. V*, 436.
 temperature as affected by lakes, *Rec. XII*,
 831.

Lander farm, Wyoming, *Rec. V*, 568.

Land-grant colleges—

- and the national defense, *Rec. X*, 706; *XI*, 98.
 relation to experiment stations, *Rec. X*, 712.
 statistics, *Rec. IX*, 701, 1099; *X*, 1001; *XI*, 397,
 801; *XII*, 298.

Lands—

- faulty, correction, *Rec. VIII*, 679.
 impoverished, treatment, *Rec. XI*, 1022.

Lands—Continued.

- waste, reclamation in Holland, *Rec. VIII*,
 315, 605.

Landscape—

- art, *Rec. VIII*, 986.
 gardening, *Rec. III*, 107; *IX*, 140, 247, 650, 756;
X, 355, 1044; *XI*, 49, 50.
 gardening, manures, *Rec. XI*, 852, 853.

Landslide in Vermont, *Rec. IX*, 531.Langdon nonswarming device for bees, *Rec. IV*,
851.Langstroth beehive, description, *Rec. XI*, 172.*Languria mozdardi*—

- as a gall maker, *Rec. I*, 41.
 notes, *Rec. II*, 603; *VI*, 649.

Lantana—

- bug, remedies, *Rec. XI*, 564.
 eradication, *Rec. XII*, 1052.
 nematodes on, *Rec. III*, 308.

Lantern trap—

- for insects, *Rec. X*, 661.
 use, *Rec. XI*, 174.

Laon, France, Agricultural Station, report, *Rec.*
V, 931.*Laphygma*—

- flavimaculata*, notes, *Rec. XII*, 265, 861.
frugiperda, notes, *Rec. II*, 80; *V*, 206; *VII*, 878;
VIII, 506; *IX*, 370, 772; *XII*, 364, 365, 468, 861.
longiperda, notes, *Rec. VIII*, 1002.

Lappa officinalis, law regarding, *Rec. I*, 323.*Laprago racemosa*, notes, *Rec. VII*, 839.Lapwing, notes, *Rec. IX*, 230.Laramie farm, Wyoming, *Rec. V*, 567.

Larch—

- acclimation in Belgium, *Rec. VIII*, 702.
 affected by cecidomyid galls, *Rec. IX*, 775.

American—

- in England, *Rec. VII*, 869.
 notes, *Rec. XII*, 559.
 ash analyses of wood and bark, *Rec. V*, 256.
 black, notes, *Rec. V*, 54.
 canker, notes, *Rec. IV*, 615; *VI*, 831; *XII*, 573.
 disease, notes, *Rec. VI*, 317; *VII*, 513, 775, 776,
 788, 876, 965; *VIII*, 63.

European—

- annual growth, *Rec. XII*, 649.
 as a timber tree, *Rec. VI*, 994.
 notes, *Rec. I*, 315; *II*, 143; *IV*, 654, 829; *V*,
 54; *VI*, 993; *XI*, 855.
 propagation from seed, *Rec. III*, 229.
 gall mite, *Rec. VIII*, 912.
 habitat and distribution, *Rec. VIII*, 604.
 in mixed forests, *Rec. XII*, 653.
 Japanese, fungus disease, *Rec. VII*, 775.
 hexenbesens, *Rec. V*, 1031.

leaves—

- browning, *Rec. XI*, 556, 1061.
 caterpillars attacking, *Rec. VII*, 146.
 sawfly, notes, *Rec. VI*, 654; *XI*, 657.
 timber production, *Rec. XII*, 454.
 trees—

- at Illinois Station, *Rec. V*, 303.
 notes, *Rec. VII*, 134.
 western, value, *Rec. VIII*, 604.
 witches' broom, *Rec. V*, 1031; *XII*, 658.
 wood, studies, *Rec. VI*, 56.
 woods of Scotland, *Rec. XI*, 942.
 worm, notes, *Rec. VI*, 313.

- Larches—
 culture, Rec. XII, 958.
 rate of growth, Rec. IV, 45.
 value, Rec. X, 1046.
- Lard—
 abnormal iodine number, Rec. IX, 1024.
 adulteration, Rec. VII, 558, 650.
 American analyses, Rec. IX, 982.
 analysis, Rec. IV, 389; VI, 504; X, 118.
 and lard substitutes, Rec. XII, 274.
 and sheep suet, effect of cotton-seed meal on,
 Rec. VI, 324.
 and similar fats, examination, Rec. VII, 529.
 beef fat in—
 detection, Rec. VII, 558, 652; VIII, 668.
 determination, Rec. V, 728.
 detection of—
 cotton-seed oil, Rec. IV, 986; V, 258; VI, 15;
 VII, 273; X, 608; XI, 811; XII, 214.
 fatty oils, Rec. III, 654.
 foreign fats, Rec. IX, 722.
 heated cotton-seed oil in, Rec. V, 258.
 impurities, Rec. VII, 649.
 vegetable oils in, Rec. X, 118.
 investigations, Rec. IV, 783.
 methods of detection, Rec. V, 611.
 worm, notes, Rec. IV, 749.
- Larder beetle, notes, Rec. IX, 65.
- Lards, compound, determination of fat in, Rec.
 VIII, 861.
- Large horn-tail, notes, Rec. X, 168.
- Larix—
americana, notes, Rec. IV, 654; V, 54.
europæa—
 notes, Rec. II, 143; IV, 654; V, 54; XI, 855.
 propagation from seed, Rec. III, 229.
leptolepis, fungus disease, Rec. VII, 775.
occidentalis, notes, Rec. VIII, 604.
 sp., notes, Rec. VII, 134.
- Lark, magpie, notes, Rec. X, 93.
- Larkspur— (See also DELPHENIUM.)
 analyses, Rec. III, 82.
 notes, Rec. III, 52; IV, 47, 653; X, 516.
 poisoning—
 notes, Rec. XI, 315.
 of cattle, Rec. XII, 891.
 live stock, Rec. V, 319.
 sheep, Rec. X, 391.
- L'Armagnac agricultural conditions, Rec. XI,
 497.
- Larva—
 hunting, nocturnal, Rec. IX, 1071.
 of *Thrixion halidayanum*, Rec. IX, 372.
- Larvæ—
 as affected by water, Rec. IX, 965.
 hair-forming dermal glands, Rec. VIII, 910.
 hymenopterous, anatomy of tracheal system,
 Rec. V, 1031.
 in a child's face, Rec. V, 901; VI, 440.
 mince-meat, notes, Rec. VI, 1003.
 of British Lepidoptera, Rec. IX, 372.
Conchylis ambignella, Rec. V, 926.
 Hycoderma in the brain of the horse,
 Rec. VII, 712.
 Cæstrus, life history, Rec. VIII, 806.
 Trichoptera, protective mimicry, Rec.
 VIII, 712.
 preservation for study, Rec. V, 515.
- Lasiocampa pini*, notes, Rec. VI, 567.
- Lasioderma serricorne*, notes, Bul. 2, I, 177; Rec.
 II, 495; IX, 65; X, 1068; XI, 472, 871.
- Lasiodiplodia tuberculata*, notes, Rec. VII, 695.
- Lasionycteris noctivagans*, notes, Rec. X, 25.
- Lasioptera*—
cervalis, notes, Rec. X, 568.
farinosa, notes, Rec. III, 705; IV, 839.
muhlenbergiae, notes, Rec. V, 311, 312.
rubri, notes, Rec. IX, 965.
 sp., notes, Rec. V, 101.
- Lasins—
americanus, relation to peach root louse, Rec.
 X, 974.
fuliginosus, notes, Rec. XII, 272.
mixtus, notes, Rec. VIII, 913.
niger in potato tubers, Rec. VI, 152.
- Latent irritability, Rec. V, 648.
- Laterites, analyses, Rec. XII, 926.
- Latex—
 functions, Rec. IX, 421.
 in rubber plants, notes, Rec. XII, 1011.
 system of lacquer trees, Rec. XII, 422.
- Lathosca nrsina*, notes, Rec. X, 770.
- Lathridiidae—
 classification, Rec. IX, 774.
 monograph, Rec. XI, 562, 871.
- Lathyrus—
clinckum, notes, Rec. VII, 252.
heterophyllus, notes, Rec. VI, 45; X, 72.
hirsutus, notes, Rec. IV, 248; VI, 35.
latifolius, analyses, Rec. X, 72.
magellanus as green manure for wheat, Rec.
 IV, 208.
maritimus—
 analyses, Rec. X, 72.
 notes, Rec. V, 809.
palmstris, notes, Rec. V, 808, 809.
platyphyllus, analyses, Rec. X, 72.
pratensis, notes, Rec. V, 934.
sativus—
 culture experiments, Rec. IV, 645.
 culture experiments in India, Rec. V, 333.
 feeding experiments, Rec. VII, 599.
 nitrogen content, Rec. V, 347.
 notes, Rec. II, 650; VI, 335.
 poisonous effects, Rec. VI, 472; VII, 209
 XII, 911.
sylvestris. (See FLAT PEA.)
tuberosus—
 in grain fields, Rec. IX, 653.
 tubers, notes, Rec. VI, 45.
venosus, analyses, Rec. VI, 406.
- Lathyrus, revision of genus in North America and
 Central America, Rec. VI, 388.
- Laticiferous, tissues, rôle, Rec. XII, 615.
- Latitude, effect on—
 development of corn, Rec. XI, 120.
 flowering and fruiting, Bul. 2, I, 105.
 germination of wheat, Rec. XI, 355.
 plant growth, Rec. IX, 944.
- Latrodectus mactans*—
 notes, Rec. XI, 561.
 poisonous bite, Rec. III, 812.
- Laurel—
 as an insecticide, Rec. VIII, 321.
 broad leaf, notes, Rec. X, 516.
 California, antiseptic value, Rec. XII, 991.

Laurel—Continued.

- cherry, mannite and sorbit in, *Rec. III*, 749.
- great, notes, *Rec. X*, 516.
- mountain, notes, *Rec. IV*, 655; *VIII*, 892.
- narrow leaf, notes, *Rec. X*, 516.
- oak—
 - notes, *Rec. III*, 521.
 - scale insects, *Rec. VI*, 564.

“Laurel green,” analyses, *Rec. XI*, 314; *XII*, 67, 273, 907.

Lauric acid in butter, *Rec. V*, 954.

Lavas of Hawaiian Islands, analyses, *Rec. X*, 527.

Lavatera—

- assurgentiflora*, notes, *Rec. V*, 589.
- insularis*, notes, *Rec. V*, 589.
- occidentalis*, notes, *Rec. V*, 589.
- venosa*, notes, *Rec. V*, 589.

Lavender—

- essence, *Rec. V*, 344.
- oil, formation, *Rec. XII*, 113.

Laverania danylewsky, notes, *Rec. XI*, 291.

Laverna—

- gleditschiella*, notes, *Rec. XI*, 952.
- herellera*, notes, *Rec. X*, 569; *XI*, 553.

Law—

- of arithmetical mean, *Rec. VI*, 114.
- equivalence of energy in biology, *Rec. VIII*, 254.

Lawes, Sir John Bennet, biographic sketch, *Rec. XII*, 201.

Lawn—

- grasses—
 - for Alabama, *Rec. XI*, 154.
 - tests, *Rec. III*, 532; *V*, 625, 786; *IX*, 651; *XI*, 743, 745; *XII*, 347.
- making, *Rec. X*, 153, 551, 553.

Lawns—

- and grasses, insects affecting, *Rec. VIII*, 320, 417.
- and meadows, insects affecting, *Rec. X*, 168.
- care, *Rec. III*, 107.
- establishment, *Rec. XI*, 154.
- fertilizers for, *Rec. XI*, 528.
- management, *Rec. XI*, 353.
- preparation of soil and seeding, *Rec. VII*, 772.
- species of trees for, *Rec. II*, 741.
- wood ashes for, *Rec. XI*, 1047.

Laws— (*See also* LEGISLATION.)

against—

- plant pests, *Rec. VI*, 647, 742.
- tea adulteration, *Rec. IV*, 77.
- agricultural, of Colorado, *Rec. VII*, 340.
- concerning contagious diseases of animals, *Rec. III*, 729; *V*, 608, 1041; *VI*, 164; *VII*, 253; *VIII*, 626; *IX*, 894; *X*, 999; *XII*, 597.
- for acquiring titles to water in the Missouri watershed, *Rec. XI*, 96.
- of growth and nutrition of plants, *Rec. V*, 749.
- regarding the dehorning of cattle, *Rec. V*, 204.
- State, relation to management of roads, *Rec. V*, 799; *VII*, 630.
- weed. (*See* WEEDS, LAWS RELATING TO.)

Lead acetate—

- as an insecticide, *Rec. II*, 319.
- effect on—
 - determination of inverted sugar by Fehling-Soxhlet method, *Rec. III*, 924.
 - germination of seeds, *Rec. V*, 882.

Lead acetate—Continued.

- effect on—continued.
 - milk, *Rec. VIII*, 253.
 - sugar solutions, *Rec. VII*, 920.
- preparation and use, *Rec. V*, 684.

Lead—

- detection in potable water, *Rec. VIII*, 202; *XII*, 906.
- determination, *Rec. VII*, 745.
- determination in canned goods, *Rec. IX*, 918.
- effect on solutions of lactose, *Rec. X*, 117.
- for water pipes, *Rec. V*, 436, 519.
- in a sample of Canadian cheese, *Rec. VIII*, 720.
- canned vegetables, *Rec. V*, 221.
- water from lead pipes, *Rec. V*, 519.
- pipes, action of water on, *Rec. III*, 432.
- plant test of poisonous quality, *Rec. III*, 24.
- poisoning—
 - by water from lead pipes, *Rec. V*, 255.
 - in horses, *Rec. XI*, 191.
- precipitate, influence on sugar determinations, *Rec. VII*, 744.
- precipitation from clarified wine and must, *Rec. VI*, 375.
- removal from invert sugar, *Rec. VII*, 365.
- salts, effect on yeast, *Rec. VI*, 507.

Leaf—

- absorption, *Rec. VII*, 372.
- beetle, aquatic, notes, *Rec. I*, 292.
- blight of nursery stock, fungicides for, *Rec. VI*, 556.
- bug, four lined—
 - notes, *Rec. V*, 406; *VI*, 654; *VIII*, 53, 146.
 - remedies, *Rec. XI*, 863.
- cells, osmotic pressure, *Rec. VIII*, 670.
- crumpler, rascal—
 - in Texas, *Rec. IV*, 373.
 - notes, *Rec. II*, 101.
- crumplers, notes, *Rec. V*, 310; *VI*, 316; *VII*, 42.
- curl, treatment, *Rec. XI*, 252.
- deformations, morphology and anatomy, *Rec. VI*, 436.
- disease—
 - fungus, notes, *Rec. V*, 627.
 - nematode, *Rec. III*, 327.
- diseases, copper salts for, *Rec. XII*, 1057.
- fibers of the United States, *Rec. V*, 92.
- folders, notes, *Rec. III*, 313; *V*, 990; *VI*, 313, 1007.
- footed bug, notes, *Rec. VI*, 899; *VIII*, 801; *IX*, 1065.
- formation and rainfall, *Rec. V*, 345.
- fungi, parasitic, *Rec. IX*, 1061.
- gall, cynipid, notes, *Rec. IV*, 838.
- galls, studies, *Rec. VIII*, 567.
- hopper—
 - destructive, notes, *Rec. II*, 50; *III*, 218.
 - hurtful, notes, *Rec. III*, 218.
 - shovel-nose, *Rec. IX*, 153.
 - spoon-bill, *Rec. IX*, 153.
 - tenderfoot, notes, *Rec. III*, 218.
 - vine, *Rec. IX*, 664.
 - vine, as affected by irrigation, *Rec. IV*, 666.
- hoppers—
 - American, *Rec. X*, 770.
 - destruction, *Rec. IV*, 729.
 - grass, hopper-doers for, *Rec. IV*, 204.

Leaf—Continued.

- hoppers—continued.
 - grass, life history, Rec. V, 62; IX, 152.
 - grass, unsolved problems, Rec. XI, 766.
 - notes, Rec. II, 80, 734; III, 55; IV, 667; V, 62, 498, 791; VI, 313; VII, 143; IX, 663; XII, 973.
 - on winter grain, Rec. V, 901.
 - tar pan for, Rec. IV, 729.
- mildews, notes, Rec. VIII, 990.
- miners, notes, Rec. III, 47; VIII, 999.
- mining fly of French beans, Rec. XI, 563.
- mold of forests, weight and composition, Rec. VII, 573.
- roller, oblique banded, Rec. VII, 880.
- rollers, notes, Rec. I, 12; III, 313; V, 498; VI, 315; VII, 143, 180; IX, 261; X, 457.
- rusts, distribution, Rec. XI, 943.
- skeletonizer, notes, Rec. V, 990; VI, 313, 1007.
- structure of alpine plants, Rec. V, 424, 923.
- tier, notes, Rec. X, 1063.
- tissues, effect of electric light on, Rec. XI, 708.
- wasps, development, Rec. IX, 966.
- weevil, notes, Rec. VIII, 611, 909.

Leafy—

- trees, ash of heart and sapwood of, Rec. V, 437.
- twigs as a feeding stuff, Rec. V, 129.

Least squares, method for valuing feeding stuffs, Rec. IV, 64.

Leather—

- analyses, Rec. VIII, 389, 563.
- ground as a fertilizer, Rec. VII, 571.
- improvement in manufacture, Rec. IV, 616.
- industry, fermentation in, Rec. V, 435.
- preparations, analyses, Rec. IX, 538.
- refuse—
 - as a fertilizer, Rec. V, 1037.
 - availability of nitrogen, Rec. VI, 24; VII, 296; VIII, 483.
 - effect on growing rye in presence of phosphates, Rec. XI, 526.
 - in fertilizers, Rec. VII, 110.
 - statistics of production, Rec. VII, 101.
- scrap ashes, analyses, Rec. XII, 626.
- waste, analyses, Rec. V, 290.

Leaves—

- accumulation of carbohydrates in, Rec. V, 253.
- aldehyde content, Rec. XI, 710.
- anatomy, Rec. VIII, 957.
- anatomy of floating and submerged, Rec. X, 223.
- and flowers, colors, Rec. VIII, 380.
- their uses, Rec. XI, 910.
- as affected by—
 - electric light, Rec. XI, 708.
 - rainfall, Rec. VIII, 205.
- assimilation, Rec. VI, 195, 617; VII, 277, 467; XI, 1015.
- autumn coloring, Rec. V, 1037.
- browning, Rec. VIII, 63.
- bud formation, Rec. X, 418.
- chemistry and physiology, Rec. IV, 984; V, 127, 344.
- dead—
 - removal from forests, Rec. VIII, 314.
 - fixation of free nitrogen, Rec. IX, 813.

Leaves—Continued.

- detached, absorption of oxygen, Rec. VI, 277.
 - dorsiventral, Rec. IX, 421.
 - dry forest, analyses of water extract, Rec. XI, 138.
 - effect on humus content of soil, Rec. VII, 23.
 - etiolated, ash content, Rec. IV, 106.
 - feeding value, Rec. IV, 873; V, 439, 733, 822, 916; VI, 76; VIII, 151, 427; IX, 175.
 - forces determining position, Rec. VIII, 205.
 - form, as affected by rain and spray, Rec. VII, 372, 925.
 - functions, Rec. IX, 621.
 - fungus disease, activity, Rec. VIII, 467.
 - green and etiolated, respiration, Rec. VI, 194.
 - green coloration as related to chlorophyll assimilation, Rec. XI, 513.
 - growth—
 - and chlorophyll function, Rec. VIII, 378.
 - as affected by carbon dioxide of the air, Rec. VIII, 203.
 - as affected by shade, Rec. X, 612.
 - in phanerogams, morphology, Rec. XII, 912.
 - injury by bumblebees, Rec. VII, 410.
 - mucilaginous, epiderm, Rec. XI, 116.
 - of banana, rate of growth, Rec. VII, 925.
 - conifers, growth, Rec. IX, 526.
 - plants, movement, Rec. IV, 522.
 - sugar beets, transformations, Rec. VIII, 28.
 - photosynthesis, effect of light transmitted, Rec. XI, 1010; XII, 313.
 - respiration, Rec. VI, 193, 507, 782.
 - shrinkage in drying, Rec. V, 937; VI, 785.
 - size as affected by shade, Rec. X, 612.
 - solandi printing, Rec. VI, 487.
 - translocation of nutrient materials, Rec. X, 23.
 - tropical, anatomy and physiology, Rec. VII, 371.
 - turgescence in motor organs, Rec. VIII, 108.
 - twigs, etc., for forage, Rec. VII, 36.
 - variegated, biology, Rec. VIII, 29.
 - xanthophyll in, Rec. VII, 749.
 - yellowing, Rec. VII, 964.
- Lebbek or siris tree, notes, Rec. XII, 248.
- Lecanide* sp., notes, Rec. VI, 834.
- Lecaniodiaspis celtides*, notes, Rec. IX, 158.
- Lecanium*—
- armeniicum*, notes, Rec. X, 1067; XII, 580.
 - baccharidis*, n. sp., notes, Rec. VI, 917.
 - bituberculatum*, notes, Rec. VII, 792; VIII, 321.
 - caryæ canadense*, notes, Rec. VII, 880.
 - cerasifex*. (See PLUM SCALE.)
 - citri*, notes, Rec. VI, 438.
 - coffææ*, notes, Rec. VIII, 807.
 - corni*, affecting hazel trees, Rec. XI, 371.
 - depressum*, notes, Rec. VI, 742.
 - flaveolum*, n. sp., notes, Rec. IX, 470.
 - hemisphericum*. (See SCALE, HEMISPHERICAL.)
 - hesperidum*. (See SCALE, FLAT.)
 - insignicolle*, notes, Rec. VI, 742.
 - juglandis?*, notes, Rec. VII, 790.
 - maculatum*, notes, Rec. VI, 566.
 - magnoliarum*, notes, Rec. IX, 369.
 - nigroasciatum*, notes, Rec. X, 768, 1062; XI, 952.
 - oleæ*. (See SCALE, BLACK.)

Lecanium—Continued.

- parvicornis*, n. sp., notes, Rec. IX, 471.
- persicae*. (See PEACH SCALE.)
- pruinorum*. (See SCALE, FROSTED.)
- prunastri*, notes, Rec. VII, 514.
- quercus*, notes, Rec. VIII, 805.
- reticulatum*, n. sp., notes, Rec. VI, 917.
- ribis*, notes, Rec. X, 164, 766.
- robiniae*, notes, Rec. IV, 418; VII, 881.
- sp., notes, Rec. IV, 203, 418; VIII, 418; IX, 71; XI, 657, 958.
- sp. on blackberries, Rec. VI, 563.
- tiliae*, notes, Rec. VIII, 418.
- tulipiferae*, notes, Rec. IX, 664; X, 458, 1067; XI, 762.
- viride*. (See SCALE, GREEN.)
- watti*, n. sp., notes, Rec. XII, 369.

Lecanium—

- affecting citrus fruits, Rec. XI, 657.
- new, on magnolia, Rec. IX, 1070.

Lecaniums of California, synopsis of species, Rec. VIII, 711.*Lecanopsis brevicornis*, notes, Rec. VII, 792.*Lecithin*—

- assimilation by plants, Rec. VII, 748.
- content of—
 - butter, Rec. V, 342.
 - milk, Rec. XII, 1077.
 - vegetable materials, Rec. V, 654, 803.
- effect on—
 - anthrax bacillus, Rec. X, 896; XI, 92, 893.
 - growth of plants, Rec. IX, 330.
 - organisms, Rec. VII, 660.
- formation and transformation, Rec. XI, 217.
- in feeding stuffs, determination, Rec. IX, 1020.
- plants, Rec. VIII, 108.
- in plants—
 - determination, Rec. VI, 270.
 - origin, Rec. X, 613.
- in seeds, determination, Rec. VI, 965; IX, 1020.
- vegetable materials, Rec. V, 654, 803.
- of sugar cane, Rec. X, 117.
- physiology, Rec. IX, 525.
- preparation from egg yolk, Rec. XI, 510.

Lectures—

- at farmers' institutes, Rec. XII, 119.
- in schools, Rec. XII, 119.

Lederer's Poultry Food, analyses, Rec. XII, 70.*Leechee nut*. (See LITCHI NUT.)*Leeches*—

- character and symptoms, Rec. VII, 65.
- studies, Rec. IX, 890.

Leeks—

- culture, Rec. VI, 819; IX, 357.
- culture experiments, Rec. VIII, 313, 407.
- fertilizer formula, Rec. XII, 851.
- notes, Rec. X, 547.
- varieties, Rec. VI, 142; VII, 405.

Leersia—

- hexandra*, notes, Rec. VII, 277.
- lenticularis*, notes, Rec. VII, 277.
- monandra*, notes, Rec. VII, 277.
- 32L,
- oryzoides*, analyses, Bul. 2, I, 108; Rec. II,
- virginica*, analyses, Rec. V, 65; VII, 277.

Leffmann-Beam bottles, graduation, Rec. IX, 888.*Legislation*— (See also LAWS.)

- affecting colleges and stations, Rec. VIII, 92.
- against—
 - insects, Rec. IV, 840; VI, 740, 916; VIII, 912, 913; IX, 675; X, 662.
 - plant diseases, Rec. IV, 76; VIII, 607, 912, 913; IX, 675; X, 662.
- on dairy products, Rec. X, 999.
- relating to—
 - New Jersey Stations, Rec. III, 310; IV, 76.
 - Pennsylvania Station, Rec. III, 453.
 - South Carolina Station, Rec. III, 315.
 - Texas Station, Rec. III, 325.

Legumes—

- African, notes, Rec. VI, 637.
- analyses, Rec. III, 579; VI, 102, 406.
- and grasses, observations on, Rec. II, 200, 329.
- as affected by lime, Rec. VI, 533; VII, 397.
- catch crops on clay soil, Rec. X, 539.
- forage crops, Rec. IV, 661; X, 542.
- nitrogen gatherers, Rec. XII, 228.
- cultivation for repression of bacteria, Rec. VI, 874.
- culture, Rec. XII, 46.
- culture—
 - experiments, Rec. IX, 348; X, 244.
 - in England, Rec. VII, 385.
 - with cereals, Rec. V, 264.
- eelworms on, Rec. VII, 876.
- effect of—
 - light on accumulation of asparagin, Rec. XII, 420.
 - weight of seed upon grain production, Rec. VII, 680.
- experiments, Rec. XI, 240.
- fertilization, Rec. X, 722.
- fertilizer experiments, Rec. X, 627; XI, 234, 250.
- food value, Rec. XII, 876.
- for maintaining soil fertility, Rec. II, 57; XI, 1036.
- fungus and insect enemies, Rec. IX, 760.
- in orchards, Rec. IX, 51.
- rotation, Rec. IX, 348; X, 1040.
- root tubercles. (See ROOT TUBERCLES.)
- turning under stubble v. whole plant, Rec. XI, 921.

Legumin in oats, Rec. III, 11.*Leguminosae*—

- and Oxalideae, spontaneous movements of leaves, Rec. VI, 873.
- assimilation of nitrogen by. (See NITROGEN ASSIMILATION; ROOT TUBERCLES; and SOIL INOCULATION.)
- notes on species, Rec. IV, 614.
- nutrition, Rec. VIII, 109.
- sensitive organs, Rec. VIII, 204.
- sieve plates in the tracheary system, Rec. IV, 879.
- tracheal wood elements of, Rec. IV, 516.
- tracheary system of sieve plates in, Rec. IV, 870.

Leguminous—

- plants—
 - assimilatory organs, Rec. VIII, 567.
 - field experiments, Rec. VII, 857.

Leguminous—Continued.

plants—continued.

- for green manuring, Rec. III. 112, 927; IV. 782; V. 225, 730, 1087; VII. 379, 490.
- sandy soils, Rec. IX. 446.
- mixed seeding, Rec. VII. 201.
- nitrogenous fertilizers for, Rec. V. 254, 835, 849, 950; XI. 723.
- notes, Rec. XI. 927; XII. 941.
- occurrence of calcium oxalate crystals, Rec. X. 321.
- poisonous, Rec. VII. 209; VIII. 885.
- root systems, Rec. VII. 656.
- roots and stubble, analyses, Rec. III. 376.
- Swedish, Rec. V. 808.
- wild, collection of seeds, Rec. V. 934.

seeds—

- carbohydrates in, Rec. IV. 449.
- germination as affected by weevils, Rec. IX. 652.
- poisonous, in Indian peas, Rec. V. 1101.
- relation between weight and composition, Rec. VIII. 58.

Leis conformis, for destroying the woolly apple-root louse, Rec. III. 546.

Lelong's nurse root process, Rec. XI. 846.

Lema—

- coloradensis*, notes, Rec. X. 769.
- jacobina*, notes, Rec. X. 769.
- lebioides*, notes, Rec. X. 769.
- longipennis*, notes, Rec. X. 769.
- melanopus*, notes, Rec. V. 588, 654.
- trilineata*, notes, Rec. I. 13.

Lema, estivation, Rec. XI. 656.

Lembrosia—

- angustiformis*, n. sp., Rec. VI. 1000.
- illicicola*, n. sp., Rec. VI. 1000.
- prinoides*, n. sp., Rec. VI. 1000.

Lemon—

- anthracnose, notes, Rec. XII. 655.
- bark blotch, notes, Rec. XII. 655.
- decay, Rec. V. 401.
- flavoring extracts, analyses, Rec. XI. 872.
- garden, notes, Rec. III. 532.
- gray scab, Rec. VII. 695.
- peel, notes, Rec. VI. 15.
- red blotch, Rec. VII. 695.
- root rot, notes, Rec. XII. 655.
- scale, description and treatment, Rec. III. 889.
- sooty mold, notes, Rec. XI. 463; XII. 655.
- wither tip, notes, Rec. XII. 655.

Lemons—

- analyses, Rec. III. 78, 591; IV. 59; V. 396; VII. 582; X. 255.
- budding, Rec. XII. 648.
- California—
 - analyses, Rec. III. 81; VI. 815; VIII. 691.
 - navel, Rec. XII. 853.
 - notes, Rec. VI. 220.
- culture, Rec. VII. 405, 585; VIII. 985; X. 1044.
- culture in Italy, Rec. XII. 450.
- curing, Rec. VI. 221; VII. 127; IX. 950; XI. 154.
- fertilizing constituents removed from soil by, Rec. III. 81.
- Messina v. California, Rec. XII. 753.
- notes, Rec. XII. 945.
- protection from frost, Rec. XII. 1045.

Lemons—Continued.

- pruning, Rec. XI. 1047; XII. 450, 648.
- spoiling, Rec. X. 59.
- varieties, Rec. III. 78; V. 396, 586; VI. 820.

Lenticels—

- origin and structure, Rec. X. 320, 519.
- studies, Rec. XII. 615.

Lentil, proteids, Rec. X. 214, 219.

Lentils—

- analyses, Rec. IX. 479, 754; X. 678.
- culture experiments, Rec. III. 82; VIII. 513.
- culture experiments in India, Rec. V. 333.
- fertilizer formula, Rec. XII. 851.
- French, notes, Rec. V. 577.
- germination tests, Bul. 2, I. 30.
- in foreign countries, statistics, Rec. VI. 295.
- nitrogen content, Rec. V. 347.
- notes, Rec. V. 808, 1074; VII. 954; X. 254; XII. 329.
- proteolytic enzyme in germinating seeds, Rec. XII. 722.
- soil inoculation for, Rec. V. 621.
- varieties, Rec. IV. 411.

Leontinus wermanni, sclerotia of, Rec. VII. 466.

Leontodon autumnalis, notes, Rec. III. 396.

Leonurus cardiaca—

- notes, Rec. V. 399.
- root system, Rec. IV. 47.

Leopard moth—

- notes, Rec. XII. 272.
- prevalence in Brooklyn, Rec. IV. 83.

Lepidiota squamulata, notes, Rec. VIII. 906.

Lepidium—

- apetalum*, notes, Rec. IX. 143, 1055.
- campestre*—
 - notes, Rec. V. 398, 399, 629.
 - root system, Rec. IV. 46.
- intermedium*, notes, Rec. IV. 167, 699; VI. 57.
- sativum*, germination and growth in rarefied air, Rec. XII. 909.
- virginicum*—
 - notes, Rec. III. 308; V. 398, 911; IX. 143, 1055.
 - root system, Rec. IV. 46.

Lepidocryptus americanus, notes, Rec. IX. 64.

Lepidoptera—

- affecting tea, Rec. XI. 1062.
- anatomy of veins, Rec. VII. 44.
- and Trichoptera, similarity of nests and cases, Rec. VIII. 712.
- attracted by light and sugar, Rec. X. 661.
- Australian, notes, Rec. X. 872.
- British, Rec. XII. 1068.
- British, larvæ, Rec. IX. 372.
- classification, Rec. VII. 516.
- Danish, Rec. X. 770.
- distribution, Rec. IX. 862.
- evolution, Rec. VIII. 808, 911; IX. 158.
- experiments with larval stage, Rec. VII. 791.
- injurious, treatise, Rec. XII. 868.
- larvæ—
 - classification, Rec. VI. 236.
 - notes, Rec. II. 258; III. 53.
- literature in the nineteenth century, Rec. XII. 972.
- migration, Rec. XI. 1064.
- new, from Africa, Rec. XI. 66.

Lepidoptera—Continued.

- North American, Rec. VIII, 614.
 notes, Rec. II, 746; IX, 862; XI, 370.
 of Colorado, Rec. X, 374.
 Norway, catalogue, Rec. VI, 566.
 scales, taxonomic value, Rec. VI, 563.
 seasonal dimorphism, Rec. X, 1076.
 silk-producing, Rec. VIII, 911; IX, 159.
 wax secreted by, Rec. VII, 596.
 wingless female, notes, Rec. III, 813.
- Lepidopterology, experimental, Rec. IX, 1070.
- Lepidospartum striatum*, notes, Rec. VI, 114.
- Leptota*—
mammæformis, notes, Rec. VIII, 671.
procera, notes, Rec. X, 551.
- Lepisma*—
domestica, notes, Rec. X, 1067.
sacharina, notes, Bul. 2, I, 179; Rec. VII, 880; IX, 64.
- Leporidae in Idaho, Rec. III, 184.
- Leptothyrium peronæ*, n. sp., description, Rec. XII, 767.
- Leptochloa dubia*, notes, Rec. X, 343.
- Leptocoris trivittata*, notes, Bul. 2, II, 33; Rec. I, 120; VIII, 146; IX, 767; X, 169; XII, 664.
- Leptoglossum alabamense*, notes, Rec. VIII, 671.
- Leptoglossus*—
oppositus, notes, Rec. XI, 364.
phyllopus, notes, Rec. II, 101; VI, 899; VIII, 801, 1002; X, 369; XI, 364.
- "Leptomin" in sugar cane, Rec. XI, 146.
- Leptops hopeii*, notes, Rec. XI, 558.
- Leptosphaeria*—
circinans, notes, Rec. VI, 647.
herpotrichoides—
 notes, Rec. VI, 312, 909; XII, 567.
 remedies, Rec. XI, 959.
phaseolorum, notes, Rec. VIII, 867.
phlogis, notes, Rec. XII, 359.
sacchari, notes, Rec. VIII, 237; X, 57.
tritici, notes, Rec. VI, 909.
- Leptostromella elastica* as a cause of leaf spot of india-rubber plants, Rec. IX, 324.
- Leptostylus*—
commixtus, notes, Rec. IX, 660.
macula, notes, Rec. X, 168.
- Leptothrix placoides*, notes, Rec. IX, 195.
- Leptothyrium*—
parasiticum, notes, Rec. IX, 659; X, 562.
perichymeni, notes, Rec. II, 455.
ponti, notes, Rec. VIII, 412; XI, 260, 655.
subhamata, notes, Rec. X, 168.
- Leptus*, bibliography, Rec. XII, 867.
- Lepus*—
americanus, notes, Rec. VI, 932.
americanus struthopus, n. subsp., notes, Rec. IX, 1030.
americanus virginianus, notes, Rec. VII, 929.
idahoensis, n. sp., notes, Rec. III, 184.
 sp. in Idaho, Rec. III, 184.
sylvaticus, notes, Rec. VI, 932.
- Lerp insect (Psyllidae) of Australia, Rec. IX, 1070.
- Lescœur's "séro-densimeter" for testing milk, Rec. VII, 462.
- Lespedeza*—
bicolor—
 culture experiments, Rec. II, 765.
 digestibility, Rec. II, 766.
 notes, Rec. IX, 41.

Lespedeza—Continued.

- bicolor intermedia*, notes, Rec. VI, 35.
cyrtobotrya, notes, Rec. VI, 97.
sericea, notes, Rec. IX, 41.
striata. (See JAPAN CLOVER.)
- Lethrus apterus*, notes, Rec. XII, 69.
- Lettuce—
 adapted to Utah, Rec. V, 53.
 analyses, Rec. IV, 59.
 classification of varieties, Rec. X, 957.
 culture, Rec. IX, 357; X, 956.
 culture—
 experiments, Rec. IV, 39; VI, 296; VII, 300, 400; VIII, 313, 407; XII, 1043.
 in Florida, Rec. X, 354.
 damping off, Rec. V, 309.
 diseases, Rec. VI, 910; XII, 1056.
 diseases—
 as affected by subirrigation, Rec. XI, 261, 552.
 notes, Rec. XI, 58.
 treatment, Rec. XII, 856.
 downy mildew, Rec. VIII, 990.
 "drop," treatment, Rec. IX, 325; X, 648; XI, 552.
 effect of transplanting on time of maturity, Rec. XII, 49.
 electro-culture, Rec. III, 519; IV, 350; V, 295; VI, 809.
 false, analyses, Rec. IV, 971, 972.
 fertilizer—
 experiments, Rec. V, 171; IX, 1048; XI, 342, 543, 646; XII, 48, 54, 344, 746, 944, 1040.
 formula, Rec. XII, 851.
 forcing, Rec. I, 83; V, 129, 347; VII, 35, 687; VIII, 405; IX, 51, 327, 840, 899, 1048; X, 149, 264, 354, 957; XI, 296, 1039; XII, 449, 550, 952, 1044.
 greenhouse culture, Rec. IV, 411.
 growth as affected by—
 incandescent gaslight, Rec. XII, 47.
 physical condition of soil, Rec. VI, 635; XI, 552.
 irrigation, Rec. XII, 344.
 irrigation experiments, Rec. XII, 54.
 leaf blight—
 notes, Rec. X, 446.
 studies, Rec. VIII, 990.
 susceptibility of different varieties to, Rec. XI, 752.
 treatment, Rec. XI, 752.
 leaf perforation, Rec. VIII, 990.
 leaf spot, notes, Rec. XII, 353.
 mildew—
 notes, Rec. IV, 51; VI, 234.
 prevalence, Rec. IV, 472.
 treatment, Rec. I, 83; IV, 472.
 notes, Rec. X, 547; XI, 850, 1047.
 plant lice, tobacco powder for, Rec. III, 97.
 pot culture, Rec. IX, 243.
 rot—
 notes, Rec. III, 162; IV, 47, 472; V, 192, 309; VIII, 990; XII, 353.
 prevention, Rec. XI, 261.
 studies, Rec. XII, 764.
 shading, Rec. XI, 739; XI², 345.
 showy, notes, Rec. VIII, 703.
 spring, grafted on salsify, Rec. V, 1089.

Lettuce—Continued.

- spraying experiments, Rec. XII, 353.
- subirrigation, Rec. V, 680; VIII, 48; IX, 840.
- top burn, Rec. IX, 325; XI, 552.
- undetermined diseases, Rec. V, 309.
- varieties, Bul. 2, II, 135; Rec. II, 5, 24, 29, 62, 240, 349, 395, 515, 566, 583, 598, 607, 641; III, 609, 622, 724, 791, 807; IV, 44, 828; V, 53, 189, 783, 785, 873, 881, 983; VI, 55, 142, 218, 423, 727, 988; VII, 35, 124, 129, 213, 301, 400, 405; VIII, 225, 790, 888, 889, 977; IX, 350; X, 48, 149, 354, 957; XI, 51, 250; XII, 1043.
- wild—
 - analyses, Rec. III, 629.
 - culture, Rec. VII, 131.
- winter—
 - culture, Rec. X, 354.
 - grafted on wild prickly lettuce, Rec. V, 1089.

Leucania—

- albilinea*, notes, Rec. V, 989; VI, 312, 313, 885.
- glauca*, analyses, Rec. X, 678.
- unipuncta*. (See ARMY WORM.)

Leucartia acraea, notes, Rec. IX, 370; XI, 471.*Leucaspis japonicus*, n. sp., notes, Rec. IX, 470.

Leucin—

- formation of glycogen from, Rec. XI, 576.
- in pancreas digestion, Rec. VI, 869.

Leucochrysa americana, notes, Rec. X, 166.*Leucoerinum montanum*, notes, Rec. III, 52.

Leucocyte count, diagnostic value, Rec. XII, 791.

Leucocytes—

- granular, Rec. VII, 842.
- in milk, Rec. XI, 701, 785.
- tuberculosis, Rec. XII, 1093.
- nutrition, Rec. XII, 489.
- relation to arsenical poisoning, Rec. XI, 91.

Leucocytosis in experimental infection, Rec. XII, 1084.

Leucomains in wine, determination, Rec. XI, 23.

Leuconostoc lagerheimi, notes, Rec. VII, 876.*Leucopis simplex*, parasitic on white-pine chermes, Rec. X, 1065.*Leucorrhinia frigida*, notes, Bul. 2, II, 93.*Leucothoe catesbaei*, notes, Rec. X, 516.

Leukæmia—

- in fowls, Rec. IX, 890.
- infectious, of poultry, Rec. XII, 894.

Levulin, crystallized, Rec. V, 817.

Levulose—

- and its humus derivatives, Rec. VII, 272.
- determination, Rec. VII, 91, 558; VIII, 460.
- furfurol from, Rec. VII, 90.
- identification, Rec. X, 920.
- in beet leaves, Rec. XII, 214, 309, 912.
- honey, Rec. VII, 558.
- manufactured products, Rec. IX, 115.
- sweet wines, Rec. VI, 868; VII, 91.
- reduction, Rec. III, 925.
- with dextrose and sucrose, determination, Rec. IV, 388.

Libellula—

- exusta*, notes, Bul. 2, II, 93.
- quadrinaculata*, notes, Rec. IX, 470.
- trimaculata*, notes, Rec. IV, 58.

Libellulids for destroying noxious insects, Rec. IX, 1072.

Libocedrus decurrens, germination test, Rec. V, 61.

Library, Agricultural, Belgian National, Rec. V, 2.

Libythea bachmanni, notes, Rec. III, 318.

Lice—

- affecting man and the lower animals, Rec. II, 609.
- biting, affecting birds and mammals of North America, Rec. XII, 867.
- on animals, Rec. XI, 498.
- domestic animals, Rec. III, 788.
- poultry, remedies, Rec. XI, 561.
- sorghum, remedies, Bul. 2, I, 30.

Lichens—

- from California and Mexico, Rec. V, 327.
- intercellular communications, Rec. VI, 115.
- Minnesota, determination, Rec. V, 936.
- notes, Rec. XII, 573.
- on citrus fruits, notes, Rec. XII, 463.
- pear trees, removal, Rec. IV, 955.
- plum trees, Rec. XI, 321.
- poisons in, Rec. V, 252.

Licorice—

- culture, Rec. XI, 251.
- culture experiments, Rec. X, 244.
- native, notes, Rec. III, 598.
- notes, Rec. VI, 44.
- root—
 - ash analyses, Rec. XII, 840.
 - culture in the United States, Rec. VI, 634.

roots, analyses, Rec. VIII, 702.

wild, notes, Rec. IV, 699; XII, 827.

Liebig, life and work, Rec. VII, 270.

Life—

- and health as related to the atmosphere, Rec. VIII, 964.
- zones—
 - and crop zones of the United States, Rec. X, 724.
 - in New Mexico, Rec. X, 324.

Ligaments, constituents, Rec. XI, 1100.

Light—

- absorption by marine algæ, Rec. VII, 657.
- amount required by plants, Rec. VI, 873.
- and air, bactericidal action, Rec. VI, 969.
- gravity, physiological effect, Rec. VIII, 1014.
- and heat, effect on—
 - animal and vegetable life, Rec. VI, 512.
 - pigmentation, Rec. IX, 329.
- and shade, effect on growth of trees, Rec. VII, 870, 962.
- temperature, effect on turgor, Rec. VIII, 471.
- colored, effect on—
 - plant growth, Rec. X, 614.
 - transpiration of plants, Rec. VI, 507.
- effect on—
 - accumulation of asparagin in legumes, Rec. XII, 420.
 - aldehyde content of green leaves, Rec. X, 929.
 - animal body, Rec. IV, 615, 986; VI, 332.
 - bacteria, Rec. V, 435, 729; VI, 280, 389, 507; VII, 19, 95; IX, 924; X, 1013; XII, 914.
 - butter, Rec. XI, 584.
 - cell division of yeasts, Rec. VIII, 670; IX, 329.

Light—Continued.

- effect on—continued.
 - diastase, Rec. VI, 387; IX, 116, 526.
 - dorsiventral organs, Rec. VIII, 867.
 - form and position of flowers, Rec. V, 649.
 - form and structure of plants, Rec. X, 517; XII, 110.
 - formation of plant proteids, Rec. XI, 707.
 - fungi, Rec. VI, 389, 507; VII, 95; VIII, 955; X, 1013; XI, 321.
 - germinating barley and wheat, Rec. VII, 372.
 - germination of seeds, Rec. IX, 54, 954.
 - growth of clover, Rec. XI, 815.
 - growth of conifers, Rec. IX, 53.
 - growth of plant organs, Rec. VI, 17.
 - growth of transplanted plants, Rec. V, 923.
 - liberation of perfume, Rec. VII, 838.
 - milk production, Rec. X, 85.
 - molds and bacteria, Rec. X, 1013.
 - plant growth, Rec. V, 114, 115; IX, 329, 625, 940; X, 125, 414, 612, 928.
 - plant respiration, Rec. IV, 857, 870; V, 728, 818.
 - rancidity of butter, Rec. V, 1023.
 - stand of forest trees, Rec. XI, 458.
 - stooling of winter rye, Rec. IX, 930.
 - sugar beets, Rec. XI, 443.
 - sugar content of plants, Rec. X, 1013.
 - synthetic processes in green plants, Rec. X, 928.
 - water bacteria, Rec. XII, 914.
 - electric— (See ELECTRIC LIGHT.)
 - effect on leaves, Rec. XII, 519.
 - for creameries, Rec. V, 656.
 - filter for microscopic work, Rec. X, 418.
 - for treatment of disease, Rec. XI, 1090.
 - influence on—
 - animal metabolism, Rec. VII, 795.
 - formation of animal organs, Rec. VII, 891.
 - magnesium, effect on plants, Rec. V, 127, 649.
 - requirements, Rec. VII, 749.
- Lighting laboratories, Rec. X, 1005.
- Lightning—
- and magnetic rocks, Rec. IX, 531.
 - and the electricity of the air, Rec. XI, 322.
 - arresters, failure of, Rec. VII, 188.
 - attraction of trees, Rec. X, 326.
 - ball Rec. X, 419, 1018; XI, 429.
 - current and sap flow in trees, Rec. V, 650; VII, 189.
 - danger from, Rec. XI, 819.
 - destruction in State of New York, Rec. X, 419.
 - distant, Rec. X, 326.
 - effect on—
 - grapevines, Rec. X, 1058; XI, 52, 122.
 - plants, Rec. X, 560.
 - trees, Rec. VIII, 891; IX, 53, 563; XI, 1051, 1052; XII, 219.
 - flashes by pairs, Rec. VIII, 111.
 - forms, Rec. IX, 531.
 - from a cloudless sky, Rec. XII, 1015, 1016.
 - loss of life by, Rec. XII, 119.
 - losses by, Rec. XI, 621, 819; XII, 1015.
 - notable, Rec. XII, 831.
 - on kite wires, Rec. X, 325, 326.
 - wire fences, Rec. X, 1018.

Lightning—Continued.

- photographing, by daylight, Rec. VIII, 110.
 - protection against, Rec. VI, 20, 196; VIII, 34; XII, 317.
 - ribbon, Rec. X, 419; XI, 430.
 - rod, scientific, Rec. VIII, 110.
 - rods, Rec. VII, 258; X, 797; XII, 118.
 - serpentine, Rec. XI, 819.
 - strikes, statistics, Rec. VI, 620.
 - utilization, Rec. IX, 531.
 - various kinds, Rec. XI, 620.
 - without thunder, Rec. XII, 1016.
- Ligneous products as food for stock, Rec. V, 822.
- Lignic acid in peach stones, determination, Rec. X, 716.
- Lignification, effect on life history of cell contents, Rec. V, 254.
- Lignified membranes, studies, Rec. VIII, 471.
- Lignin—
- and phenyl hydrazin, color reaction between, Rec. V, 251.
 - determination, Rec. X, 606.
 - in buds of *Prunus americana*, Rec. XII, 910.
 - occurrence in vascular cryptogams, Rec. XI, 319.
- Lignite, ash analyses, Rec. XII, 214.
- Lignites, analyses, Rec. IV, 244.
- Lignoceric acid, notes, Rec. XI, 23.
- Ligno-cellulose, chemistry, Rec. V, 538, 647.
- Ligustrum*—
- ovalifolium*—
 - fertilizer experiments, Rec. XII, 557.
 - notes, Rec. IV, 655.
 - vulgare*, notes, Rec. IV, 655.
- Ligyris gibbosus*, notes, Rec. VII, 878.
- Ligyris* stalk beetle, notes, Rec. VII, 878.
- Lilac—
- borer, notes, Rec. II, 663; IX, 151.
 - flowers, artificial coloration, Rec. IV, 693.
 - Josikas, notes, Rec. IV, 656.
 - leaf blight, notes, Rec. III, 297.
 - notes, Rec. IV, 656.
- Lilacs—
- culture, Rec. IX, 756.
 - forcing, Rec. IX, 141.
 - hybrids between common and Persian, Rec. XII, 613.
 - Persian, notes, Rec. IV, 656; XII, 1046.
 - tree, notes, Rec. III, 788.
 - varieties, Rec. IX, 247.
- Lilium*—
- harrisi*—
 - as affected by electric light, Rec. VIII, 984; XI, 937.
 - diseases, Rec. IX, 149.
 - speciosum*, notes, Rec. VIII, 986.
- Lilium*, revision, Rec. XI, 121, 352.
- Lily—
- Atamasco, notes, Rec. XII, 1045.
 - Bermuda, disease, Rec. IX, 362.
 - blight, Rec. VII, 592.
 - bulb disease, Rec. IX, 1059.
 - bulbs and flowers as food, Rec. IX, 1078.
 - culture, Rec. XII, 247.
 - disease—
 - cause, Rec. X, 653.
 - notes, Rec. VI, 234; VIII, 507.

Lily—Continued.

disease—continued.

prevention, Rec. IX, 55, 658.

produced by overwatering, Rec. X, 59.

treatment, Rec. X, 451.

Japanese, as food, Rec. VII, 803.

mountain, notes, Rec. III, 52.

notes, Rec. V, 873; XI, 352.

of the valley—

disease, Rec. X, 971.

forcing, Rec. IX, 247.

notes, Rec. IV, 653; X, 516.

plantain, notes, Rec. V, 401.

stalk borer, notes, Rec. X, 273.

water, culture, Rec. VIII, 986.

Lima bean—

blight, Rec. XI, 757.

mildew—

notes, Rec. II, 482; V, 878; X, 445; XI, 754.

treatment, Rec. V, 878; X, 261.

pod spot, Rec. XI, 752.

Lima beans—

analyses, Rec. IV, 59.

bush—

irrigation, Rec. XI, 738.

mulching, Rec. XI, 738.

thickness of sowing, Rec. XI, 738.

varieties, Rec. XI, 738.

culture, Rec. VIII, 129; XII, 647.

culture experiments, Rec. VIII, 313, 407; IX, 244, 946.

dwarf, Rec. IX, 449.

fertilizer experiments, Rec. XI, 738.

notes, Rec. XI, 1047; XII, 340.

Phytophthora, Rec. IX, 1061.

pole, Rec. IX, 950.

shading, Rec. XI, 739.

varieties, Rec. V, 785; VI, 548; VII, 124, 210, 213, 405, 685; VIII, 128, 790, 791, 977; IX, 244; X, 849.

Limacodes scapha, notes, Rec. III, 54.*Limax*—*agrestis*, notes, Rec. XI, 371; XII, 1063.*campestris*—

food habits, Rec. IV, 668.

notes, Rec. VIII, 506; XI, 472.

Lime—

addition to crude phosphates, Rec. VII, 293.

analyses, Rec. II, 581; III, 299; IV, 26, 27, 787; VI, 202, 401; VIII, 485, 563; X, 230, 919; XI, 719, 917; XII, 624, 626, 907, 931.

and carbolic acid for plum curculio, Rec. II, 280.

London purple, Rec. IV, 417; V, 791.

London purple—

effect on foliage, Rec. III, 97.

for corn bollworm, Rec. V, 791.

and magnesia—

action in marl and burnt lime, Rec. VI, 628.

action on soluble phosphoric acid of the soil, Rec. VII, 104.

effect on development of conifers, Rec. VII, 869.

and marl—

application, Rec. VII, 293.

for sandy soils, Rec. X, 940.

studies, Rec. VII, 853.

Lime—Continued.

and nitrogenous fertilizers, Rec. X, 937.

Paris green, Rec. V, 101.

and Paris green—

for apple-leaf crumpler, Rec. IX, 157.

apple-leaf folder, Rec. IX, 157.

apple scab, Rec. IV, 500.

grapevine flea-beetle, Rec. XI, 64.

and phosphoric acid—

in ash of milk, Rec. V, 639; VI, 335.

the development of animals, Rec. VIII, 821.

and potassium sulphid as a fungicide, Rec. II, 221.

slag, Rec. IX, 338.

sodium hyposulphite as a fungicide, Rec. II, 221.

and sulphur—

dip, Rec. XI, 191.

for grass mildew, Rec. VIII, 307.

as a fertilizer, Rec. IV, 248, 518; VI, 203; VII, 573, 670, 757; IX, 899; X, 735, 832, 846.

a manure for paddy fields, Rec. II, 762.

a preservative for fruits, Rec. X, 758.

an insecticide, Rec. II, 416; XI, 66.

assimilable, determination in soils, Rec. XII, 1020, 1024.

burnt—

effect on different plants, Rec. XI, 1023.

effect on sandy soils, Rec. XII, 840.

calcium oxid in, Rec. VI, 376.

carbonate for sweet potato diseases, Rec. III, 307.

coal-gas, analyses, Rec. XII, 934.

content of soils as related to humus formation, Rec. IV, 614.

deficiency in Lombardy soils, Rec. XII, 485.

determination, Rec. VI, 110; VIII, 202, 286; IX, 321; XI, 106; XII, 609.

determination—

in arable soils, Rec. VIII, 113.

of minute quantities, Rec. III, 748.

photometric method, Rec. XII, 307.

dip, experiments, Rec. XI, 997.

effect on—

assimilability of phosphoric acid, Rec. II, 764.

availability of nitrogen in bone, Rec. XII, 528.

digestibility of feeding stuffs, Rec. IV, 437.

flocculation of soils, Rec. VI, 282.

glucose, Rec. VI, 344.

growth of leguminous plants, Rec. VI, 533; VII, 397.

humus and nitrogen content of soils, Rec. XII, 727.

humus content of soils, Rec. XI, 824.

humus substances, Rec. X, 1022.

invert sugar, Rec. IV, 988; V, 251.

nitrification, Rec. X, 830; XII, 442.

root tubercles, Rec. VI, 507; XII, 548.

slag, Rec. VIII, 584.

sucrose, Rec. VII, 718.

vegetation, Rec. XII, 222.

yield and persistence of grass and weeds, Rec. XII, 634.

yield of hay, Rec. VII, 297; X, 633.

Lime—Continued.

fertilizer—

- analyses, Rec. X, 1031.
- experiments with, Rec. VI, 521.
- for acid soils, Rec. VIII, 584; IX, 935, 939; X, 939; XI, 915; XII, 630.
- alfalfa root disease, Rec. VI, 560.
- asters, Rec. V, 879.
- barley, Rec. IX, 937.
- beets, Rec. IX, 937.
- cabbage club root, Rec. V, 685; VI, 647; IX, 56; X, 155.
- chlorosis, Rec. XI, 469.
- clarifying sugar-cane juices, Rec. III, 389.
- clay soils, Rec. III, 581; IV, 22; V, 695; IX, 1043.
- clover, Rec. VIII, 595; IX, 641.
- club root, Rec. VII, 513.
- corn, Rec. V, 780, 788, 789, 978; X, 633.
- cranberry diseases, Rec. III, 307.
- grasses and pasture land, Rec. V, 526, 711; XI, 136, 642; XII, 133, 634, 732, 898.
- hops, Rec. XI, 145.
- lupines, Rec. VII, 397, 673; VIII, 491, 596; IX, 134; XI, 643.
- marsh soils, Rec. IX, 1043; XII, 623.
- meadow grass, Rec. XI, 136.
- oats, Rec. V, 779; VII, 858.
- peach trees, Rec. V, 397.
- peanuts, Rec. I, 3.
- pear slug, Rec. VII, 35.
- peas, Rec. XI, 739.
- plum curculio, Bul. 2, II, 118.
- potato rot, Rec. II, 407.
- potato scab, Rec. V, 590; VI, 907.
- potatoes, Rec. VII, 760; XII, 845.
- preservation of barnyard manure, Rec. IX, 738.
- rose chafers, Rec. III, 171.
- San José scale, Rec. III, 54.
- soils, Rec. VI, 130, 898; VII, 377, 378; X, 228, 335, 427.
- sugar-beet root rot, Rec. XI, 163.
- sugar beets, Rec. XI, 143.
- sweet potato diseases, Rec. II, 307.
- tobacco, Rec. IV, 908, 909; V, 866; XII, 542.
- tomato blight, Rec. XII, 867.
- tomatoes, Rec. XI, 739.
- turnip club root, Rec. VI, 736; VII, 785; VIII, 893; IX, 654; X, 155, 443; XI, 555, 1050; XII, 352.
- wheat smut, Rec. II, 221.
- wireworms, Rec. III, 449.
- from beet-sugar factories, pot experiments, Rec. VIII, 39.
- clam shells, analyses, Rec. X, 1031.
- in arable soils, rôle, Rec. VI, 395.
- barnyard manure, Rec. V, 141.
- fertilizers, rôle, Rec. VII, 490.
- milk ash, Rec. V, 639; VI, 335.
- milk, effect on digestibility, Rec. V, 734, 960.
- phosphates, determination, Rec. IV, 983.
- phosphatic fertilizers, value, Rec. X, 1034.

Lime—Continued.

in soils—

- determination, Rec. VI, 22, 119, 503, 792; VII, 845.
- of Hawaii, determination, Rec. XI, 507.
- in Thomas slag, determination, Rec. IV, 387, 502, 903.
- metabolism of, Rec. VI, 77.
- occurrence in Maryland, Rec. XII, 624.
- oyster-shell—
 - analyses, Rec. IV, 903.
 - valuation, Rec. XI, 528.
- refuse—
 - analyses, Rec. VIII, 682, 768; X, 235.
 - from sugar-beet factories as a fertilizer, Rec. XII, 430.
- removal of part from milk to render more digestible, Rec. V, 734.
- replacement by strontium in plant nutrition, Rec. V, 539, 698, 822.
- resorption and excretion, Rec. VII, 523.
- resorption and excretion by animals, Rec. V, 732, 1020, 1021.
- resources of the soil as affected by—
 - muriate of potash, Rec. VIII, 114.
 - potassium and chlorid of sodium, Rec. IX, 339.
- salt and sulphur, preparation, Rec. XII, 975.
- salts, effect on yield of cheese, Rec. IX, 584; XII, 91.
- shell, analyses, Rec. XII, 934.
- slaked, effect on yeast, Rec. VII, 928.
- solubility—
 - in soils as affected by fertilizers, Rec. XII, 623.
 - sugar solutions, Rec. XII, 823.
- strontium, and barium, quantitative separation, Rec. IV, 983.
- use, before and after seeding, Rec. X, 832.
- uses in agriculture, Rec. IV, 614; VIII, 969; XI, 230; XII, 131, 624, 627.
- waste, analyses, Bul. 2, II, 107; Rec. X, 919.
- with arsenic as a fungicide, Rec. II, 221.
- arsenites, Rec. III, 174; IV, 84; V, 403.
- arsenites, effect on foliage, Rec. II, 216.
- commercial fertilizer on acid soils, Rec. X, 939.
- (See also LIMING.)
- Limekiln ashes, analyses, Rec. III, 8, 623, 764; IV, 465; V, 164; VI, 202; VII, 195, 294, 670; VIII, 41, 563; IX, 538, 825; X, 230, 428, 835, 1033; XI, 137, 719; XII, 626, 931.
- Limenitis disippus*, notes, Rec. VI, 740.
- Limes—
 - California, analyses, Rec. VIII, 692.
 - essential oil, Rec. VII, 162.
 - soils, treatment, Rec. VII, 35.
 - Spanish, notes, Rec. VI, 636.
 - stunting of fruits, Rec. XI, 59.
 - West Indian, Rec. V, 1030.
- Limestone—
 - analyses, Rec. I, 221; III, 8, 590; IV, 27, 787; VI, 401; VII, 835; VIII, 377, 485, 966; IX, 636; X, 716; XI, 812, 1036; XII, 419, 516, 624, 627, 906, 907.
 - detection of magnesia in, Rec. VII, 834.

Limestone—Continued.

determination of—

carbon dioxide, Rec. XI, 508.

magnesia in, Rec. VIII, 25.

ground—

analyses, Bul. 2, I, 190.

in agriculture, Rec. X, 533.

inspection, Rec. V, 801.

methods of analysis, Rec. VIII, 953.

phosphatic, analyses, Rec. VI, 272, 274.

valuation, Rec. XI, 528.

Lime tree winter moth, Rec. IV, 416; VI, 740; IX, 858; X, 167; XII, 68.

Limewater—

and Sulfuric for rose rust, Rec. X, 651.

for determination of acidity of cream, Rec. VII, 254.

preservation of eggs, Rec. IX, 981.

gas, analyses, Rec. XII, 934.

titration with, Rec. VII, 273.

Liming—

effect of excessive, Rec. X, 427.

experiments, Rec. VI, 286; VII, 377, 378, 850;

VIII, 580; IX, 640, 935, 939; X, 425, 938, 939;

XI, 918, 1099; XII, 441, 625, 735, 737, 1021.

harmful effect, Rec. VI, 521.

methods, Rec. XII, 627.

studies, Rec. VII, 116, 300.

Limnanthes, localization of active principles in, Rec. V, 729.

Limmeria—

ferrugineipes on *Cimex americana*, Rec. IV, 171.*fugitiva*, notes, Rec. II, 116.*mississippiensis*, n. sp., notes, Rec. VI, 739.*pallipes*, notes, Rec. II, 116.*Limodorum abortivum*, chlorophyll assimilation, Rec. XI, 119.

Limonite, analyses, Rec. VI, 274.

Limonia auripilis, notes, Rec. II, 323; IV, 839.*Limosina sacra*, notes, Rec. VII, 880.

Limothrips—

cerealeum, notes, Rec. III, 860.*tritici*, notes, Rec. VI, 652; VII, 697.*Lina lapponica*, notes, Rec. I, 232; II, 116; V, 206; VIII, 905.*scripta*, notes, Rec. I, 232; II, 663, 664; V, 206; X, 467.

sp., notes, Rec. II, 116.

tremula, notes, Rec. I, 232.*Linaria vulgaris*. (See TOAD FLAX.)

Linden— (See also TILIA.)

American—

notes, Rec. II, 512; III, 521, 788; IV, 655; VII, 961; VIII, 604.

spanworm, notes, Rec. IV, 416.

and beech oils for table use, Rec. VI, 163.

blight, notes, Rec. IX, 657.

European, notes, Rec. IV, 655; XII, 153.

honey dew, composition, Rec. V, 348.

leaf disease, Rec. VII, 882.

leaf roller, notes, Rec. VI, 313.

leaf spot, Rec. X, 260.

trees for bees, Rec. V, 102.

Lindens—

Cecidomyia sp. on, Rec. VII, 968.

description and synoptic notes, Rec. VII, 775.

Linguatula—

denticulatum, notes, Rec. IX, 274.*tenuoides*, notes, Rec. II, 79; IX, 274.

Linnet, green, notes, Rec. XI, 426.

Linseed—

cake—

adulteration, Rec. IV, 316.

analyses, Rec. III, 746; V, 914; VIII, 153; XI, 971.

digestibility, Rec. IX, 476; X, 1083.

effect on yield and composition of milk, Rec. X, 1083.

examination, Rec. V, 913.

for cows, Rec. VI, 160.

fattening sheep, Rec. V, 920.

steers, Rec. V, 599; X, 773.

lecithin content, Rec. V, 803.

manufacture and properties, Rec. IV, 316.

nutritive value, Rec. XI, 73.

oil, examination, Rec. VIII, 562.

oil in, Rec. VII, 163.

r. distillery grains for sheep, Rec. IX, 172.

dried brewers' grains for beef production, Rec. IX, 166.

flaxseed for cows, Rec. XI, 578.

sesame cake for cows, Rec. III, 656, 745.

meal—

analyses, Rec. I, 15, 80; II, 243, 277, 295, 504, 579, 645; III, 11, 153, 157, 288, 296, 301, 357, 401, 530, 878; IV, 64, 175, 567, 569, 732, 955; V, 596; VI, 163, 274, 444, 752, 842, 1008, 1023; VII, 294, 614; VIII, 117, 426, 712, 1004; IX, 538, 682, 786; X, 230, 275, 474, 678; XI, 279, 883, 971; XII, 70, 169, 281, 282, 378, 472, 478, 587, 877, 907.

and barley meal for pigs, Rec. IV, 423.

bran r. corn meal for milk production, Rec. V, 889.

skim milk for calves, Rec. V, 634.

as a source of nitrogen, Rec. VII, 757.

change on exposure, Rec. III, 265.

Cleveland, analyses, Rec. XI, 381.

comparative feeding value, Rec. VIII, 615.

cost and valuation, Bul. 2, I, 53.

digestibility, Rec. VIII, 615, 713; IX, 479.

examination, Rec. V, 913.

for cows, Bul. 2, II, 78; Rec. II, 277, 592; III, 222, 288, 785; IV, 64, 65, 260; VIII, 335; XII, 589.

lambs, Bul. 2, I, 167; Rec. V, 502.

pigs, Rec. III, 222.

steers, Rec. III, 162; VII, 523.

tobacco, Rec. V, 865; IX, 545.

meal, new process—

digestibility, Bul. 2, I, 132; Rec. VI, 317; VII, 317.

fertilizing constituents, Bul. 2, I, 133.

r. old process for cows, Rec. II, 277; III, 153, 287.

meal, old process—

analyses, Rec. I, 15; V, 195; VI, 331; XI, 279, 777.

digestibility, Bul. 2, I, 132; Rec. VI, 318.

fertilizing constituents, Bul. 2, I, 133.

for cows, Rec. IV, 64, 65.

for milk production, Rec. V, 1065.

Linseed—Continued.

meal—continued.

old *v.* new for cattle feeding, Rec. IX. 75.
porridge and skim milk for calves, Rec. V, 68.

Tyroglyphus longior in, Rec. X, 769.

v. Cleveland meal for lambs, Rec. XI, 566.
corn meal and wheat bran for cows, Rec. V, 887; VIII, 335.
corn meal for steers, Rec. V, 69.
cotton-seed meal for lambs, Rec. IV, 261.
flaxseed meal for cows, Rec. III, 785.
gluten meal for beef cattle, Rec. VIII, 77.

meals and feeds, analyses, Rec. XII, 282.

oil—

American, analytical constants, Rec. X, 821.
analysis, Rec. XII, 419.
cake, analyses, Rec. X, 276.
emulsion, effect on fat content of milk, Rec. X, 487.
for cows, Rec. IX, 683.

plum black knot, Rec. I, 83.

refuse, analyses, Rec. I, 80; II, 581.

Lintner, J. A., life and entomological work, Rec. XI, 656.

Lioderma uhleri, notes, Rec. X, 460, 571.

Liparis—

chrysorrhoea, notes, Rec. V, 821; VIII, 809.
dispar. (See GYPSY MOTH.)
monacha. (See LYMANTRIA MONACHA.)

Liparocephalus brevipennis, notes, Rec. IX, 966.

Lipases, nonidentity, Rec. VIII, 954.

Lipeurus—

botauri, notes, Rec. IX, 254.
infuscatus, notes, Rec. IX, 254.

Lipeurus, notes, Rec. XI, 263.

Lipocarpa—

argentea, notes, Rec. X, 825.
maculata, notes, Rec. X, 825.
microcephala, notes, Rec. X, 825.
sphacelata, notes, Rec. X, 825.

Lipoptera cervi, notes, Rec. VIII, 909.

Lippia nodiflora, notes, Rec. X, 343.

Liquid air—

as a reagent, Rec. XII, 309.
a source of power, Rec. XI, 222.
effect on ferments, Rec. XII, 916.
history and manufacture, Rec. XI, 511.

Liquid—

fertilizer, analyses, Rec. VIII, 117; XI, 138, 528.

hydrogen, effect on seed germination, Rec. XI, 1053.

Liquids—

apparatus for—
condensation, Rec. XII, 683.
determining specific gravity, Rec. V, 251.
maintaining constant level, Rec. VIII, 26.
determination of—
metals in, Rec. VII, 557.
specific gravity, Rec. VIII, 861.
emission by plants, Rec. IX, 29.
pipette for measurement, Rec. IX, 323.
sterilizing, Rec. V, 435.

Liquors—

alcoholic—

analyses, Rec. VIII, 286.
determination of fusel oil, Rec. XI, 313.
and food, adulteration, Rec. IX, 412.
determination of sugars in, Rec. VII, 556.
distilled, examination, Rec. IX, 895.

fermented—

determination of glycerin in, Rec. III, 924.
from sugar beets, Rec. V, 928.
glycerol in, Rec. XII, 1007.
methods of analysis, Rec. II, 92, 608; III, 682; IV, 183; V, 510; VII, 267; VIII, 277.

Liriodendron tulipifera, notes, Rec. IV, 654.

Lissorhoptrus simplex, notes, Rec. IV, 848.

Listera cordata, mycorrhiza, Rec. VII, 925; IX, 727.

Listrionotus—

appendiculatus, notes, Rec. VII, 697.
laticusculus, notes, Rec. I, 292.

Lita solanella, notes, Rec. III, 811; IV, 688; VII, 147.

Litchi nuts—

food value, Rec. XII, 78.
notes, Rec. VIII, 231.

Lithium—

distribution in plants, Rec. XI, 710.
in chick-pea, Rec. III, 925.
German iris, Rec. III, 925.

Lithocolletis—

betulivora, notes, Rec. II, 746.
cincinnatiella, notes, Rec. XI, 954.
concomitella, notes, Rec. XII, 69.
grindeliella, notes, Rec. II, 746.
lucetiella, notes, Rec. XI, 954.
ostensackenella, notes, Rec. V, 884.
robiniella, notes, Rec. V, 884.
trifasciella, notes, Rec. IV, 416.

Lithocolletis, genus, Rec. IX, 862.

Lithophane antennata, notes, Bul. 2, II, 58; Rec. II, 162; IX, 558; X, 164.

Lithospermum arvense, notes, Rec. II, 655; V, 393.

Litmus—

commercial, Rec. VII, 835.
indicator, preparation, Rec. IV, 782.
tincture, preparation, Rec. VI, 615.

Litter—

absorption of—
ammonia, Rec. V, 144.
liquids, Rec. V, 144.
absorptive power for ammonium carbonate, Rec. IX, 1041.
for animals, composition, Rec. V, 143.
preservation of barnyard manure, Rec. X, 134.
materials for, Rec. V, 255.
peat *v.* straw, Rec. XI, 438.
plants adapted for, Rec. X, 349.
straw for, Rec. V, 655.
treated with sulphuric acid, Rec. VIII, 928.
use of peat as, Rec. VIII, 720.
uses, Rec. V, 143.
wood, Rec. V, 927.
“Little peach” disease, Rec. X, 154, 970.
Live-forever, notes, Rec. IV, 472.

Live stock—

- associations of Ontario, Rec. VIII. 332; XI. 778.
 - as related to fertility, Rec. III. 453 713.
 - at Louisiana Stations, Rec. IV. 197, 359, 748; V. 203; VI. 243, 574, 582; VII. 432.
 - Breeders' Association, report, Rec. IX. 899; X. 780.
 - breeding in England, Rec. IX. 1080.
 - commissioners of Illinois, report, Rec. XI. 285.
 - diseases—
 - laws, Rec. V. 1041.
 - occurrence and distribution, Rec. X. 296.
 - farming as related to home making, Rec. XI. 397.
 - feeding, Rec. II. 572; XI. 397.
 - feeding—
 - and care, Rec. X. 282.
 - as related to farm fertility, Rec. XI. 971.
 - in the South, Rec. XI. 397.
 - potatoes, Rec. VII. 63, 155, 248, 337, 616.
 - industry of—
 - Colorado, Rec. III. 729.
 - Kansas, Rec. III. 729.
 - Nebraska, Rec. III. 729.
 - Russia, Rec. XII. 700.
 - Wisconsin, Rec. III. 729.
 - Wyoming, Rec. III. 727, 729.
 - insurance societies, Rec. V. 441.
 - loco poisoning, Rec. V. 319.
 - of Great Britain and Ireland, Rec. VI. 943.
 - on station farm, Rec. III. 386.
 - plants poisonous to, Rec. I. 295; VIII. 892; IX. 957; X. 54; XI. 113, 120, 220, 909; XII. 218, 891.
 - poisoning by larkspur, Rec. V. 319.
 - production in Wyoming, Rec. IV. 956.
 - reports for Manitoba, Rec. XI. 999.
 - Sanitary Association, National, Rec. V. 1042.
 - sanitary board—
 - of Maryland, Rec. V. 1041.
 - Pennsylvania, circulars relative to tuberculosis, Rec. IX. 996.
 - sanitary boards—
 - convention, Rec. V. 1041.
 - State, Rec. XI. 998.
 - statistics, Rec. X. 881, 999; XI. 672; XII. 1077.
 - suggestions for quarantine laws, Rec. XI. 91.
 - trade, development, Rec. IX. 898.
 - value, Rec. VI. 755.
- Liver—
- analyses, Rec. IV. 59.
 - disease in calves, Rec. XII. 993.
 - fluke—
 - of cattle, notes, Rec. II. 318; IV. 749.
 - sheep, notes, Rec. III. 152; VII. 252; XI. 797.
 - n. sp., correction in name, Rec. III. 580.
 - flukes—
 - investigation, Rec. III. 725.
 - notes, Rec. II. 79; III. 725; VII. 252; IX. 274; XI. 997; XII. 792.
 - influence on formation of urea, Rec. V. 1101.
 - rot and sheep rot. (See LIVER FLUKE.)
- Liver of sulphur—
- as a fungicide, Rec. II. 406.
 - for cabbage caterpillars, Rec. IV. 865.

Lixus concavus—

- attacking rhubarb, Rec. VII. 699.
 - notes, Rec. I. 291; II. 292; XII. 363.
- Loam, analyses, Rec. IX. 939.
- Loan associations in Europe, Rec. III. 183, 905.
- Lobelia inflata*, analyses, Rec. III. 629.
- Lobeliaceæ, fecundation, Rec. X. 417.
- Lobster refuse, analyses, Rec. X. 835.
- Local climatic changes, Rec. IX. 814.
- Lockjaw. (See TETANUS.)
- Loco—
- bibliography, Rec. V. 319.
 - disease—
 - observations, Rec. IV. 749.
 - plants causing, Rec. IV. 924.
 - treatment, Rec. IV. 925.
 - poisoning—
 - of horses, Rec. II. 395.
 - live stock, Rec. V. 319.
 - sheep, Rec. II. 395; V. 629.
 - weed—
 - analyses, Rec. III. 82.
 - stemless, notes, Rec. X. 516.
 - woolly, notes, Rec. X. 516.
 - weeds, notes, Rec. IV. 924; VI. 732.
- Locust—
- American, in Virginia, Rec. VI. 739.
 - Australian, notes, Rec. XII. 1067.
 - bacterial disease, Rec. X. 273.
 - bagworm, notes, Rec. V. 992.
 - bean meal, analyses, Rec. IV. 174.
 - birds as enemies, Bul. 2. II. 93.
 - black—
 - for reforestation in France, Rec. XII. 757.
 - nitrogen assimilation by, Rec. III. 337.
 - notes, Rec. IV. 655; V. 884, 1030; VII. 508, 961; X. 53, XII. 153, 456, 562.
 - rate of growth, Rec. XII. 1048.
 - borer, notes, Rec. III. 47; VI. 567; VII. 413; IX. 964; XII. 263.
 - catcher, automatic, Rec. VII. 882.
 - cossum, notes, Rec. II. 101.
 - detestable, notes, Rec. IV. 760.
 - devastating—
 - notes, Rec. III. 55; IV. 760.
 - parasite, Rec. IV. 372.
 - differential, notes, Rec. III. 55; IV. 57, 760; V. 1079; VI. 315.
 - disease, Rec. IX. 663.
 - disease, South American, notes, Rec. XI. 370.
 - eggs, collection in Morocco, Rec. X. 571.
 - foliage, injuries by arsenites, Rec. II. 216.
 - fungus, development and use in Africa, Rec. XII. 866.
 - green bush, notes, Rec. IV. 760.
 - grouse, flight, Rec. VI. 151.
 - hispa, notes, Rec. III. 46.
 - honey. (See GLEDITSCHIA TRIACANTHOS.)
 - lead-colored, notes, Rec. IV. 760.
 - leaf beetle, notes, Rec. IX. 662, 664; X. 68.
 - leaf miners, notes, Rec. V. 884; X. 61; XI. 477.
 - leaf pasters, notes, Rec. III. 47.
 - leaf rollers, notes, Rec. III. 47.
 - leaves as food for animals, Rec. V. 1030.
 - lesser migratory, notes, Rec. III. 55, 228; IV. 760.
 - midge, notes, Rec. III. 47.

Locust—Continued.

migratory—

- control, Rec. XII, 468.
- in Minnesota, Rec. III, 228.
- natural enemies, Rec. XI, 1066.
- notes, Rec. VIII, 145; XI, 864.
- of Argentine Republic, Rec. VI, 566.
- New South Wales and Fiji Islands, Rec. VI, 442.

remedies, Rec. XI, 477.

- narrow-winged, notes, Rec. IV, 760.
- pellucid-winged, notes, Rec. III, 55, 228; IV, 760; VIII, 145.
- plague in Australia, Rec. XII, 270.
- red-legged—
 - notes, Rec. IV, 57; V, 311, 1079; VI, 315, 442; IX, 458; XII, 468.
 - nonmigrating, Rec. III, 55.
 - remedies, Rec. IX, 467.
- red-winged, Rec. X, 61.

Rocky Mountain— (See also MELANOPLUS SPRETUS.)

- and its allies in Canada, Rec. VIII, 807.
- egg parasites, Rec. I, 231.
- in Minnesota, Rec. I, 230.
- injuries by, Bul. 2, II, 92.
- notes, Rec. III, 55, 222, 228; IV, 730, 839; X, 460; XI, 766, 862, 864, 957; XII, 245.
- parasites, Rec. XII, 264.
- remedies, Rec. I, 231; XI, 264.

scale, notes, Rec. IV, 418; VII, 134.

seventeen-year—

- notes, Rec. VI, 316, 652.
- in Ohio, Rec. IX, 961; X, 372.
- West Virginia, Rec. XII, 1063.

- skeletonizer, notes, Rec. V, 884.
- skipper butterfly, notes, Rec. III, 47.
- skipper, notes, Rec. V, 884.
- spotted, remedies, Rec. XI, 477.
- tree borer, notes, Rec. X, 68.
- tree carpenter moth, notes, Rec. III, 47; X, 164.

tree—

- insects affecting, Rec. III, 47, 102.
- notes, Rec. IV, 852; VII, 508, 961.

twig borers, notes, Rec. III, 47.

twigs, analyses, Rec. III, 493.

two-lined, notes, Rec. VI, 315.

two-striped, Rec. III, 55; V, 311; VIII, 145; X, 466.

yellow, notes, Rec. IV, 655.

yellow-striped, notes, Rec. V, 1079.

Locusta viridissima, notes, Rec. XII, 974.

Locusts—

- analyses, Bul. 2, II, 93; Rec. XI, 913.
- and cockroaches of Indiana, Rec. VI, 440.
- as a fertilizer, Bul. 2, II, 92; Rec. XI, 913.
- as propagators of disease, Rec. VIII, 912.
- description and treatment, Rec. III, 889.
- destruction, Rec. VI, 739; XII, 974.
- destruction—
 - by arsenic poisoning, Rec. IX, 863.
 - fungus cultures, Rec. X, 1077; XI, 659; XII, 273.
- driving away, with firearms, Rec. XI, 1063.
- egg sacs and larvæ, Rec. IX, 862.
- in Algeria, notes, Rec. VI, 443.

Locusts—Continued.

- in America north of Mexico, Rec. IV, 760.
- Argentina and South Africa, Rec. XII, 868.
- Arizona, Rec. V, 514.
- Buenos Ayres, Rec. VIII, 807.
- Cape Colony, Rec. VII, 880.
- Chile, migratory, Rec. V, 514.
- Colorado, Rec. V, 514, 901.
- Egypt, Rec. III, 813.
- France, notes, Rec. VI, 838.
- Kentucky, Rec. V, 1079; VII, 880.
- Minnesota, Rec. VI, 441; VIII, 145.
- Missouri, Rec. V, 327.

in Nebraska—

- notes, Rec. V, 101; XI, 370.
- remedies, Rec. IX, 861.

in New Hampshire, Rec. X, 571.

New Mexico and Arizona, Rec. V, 514

New York, Rec. VI, 740.

North America, Rec. III, 327, 907.

Ohio, 1891, Rec. IV, 284.

Palestine, notes, Rec. VI, 566.

South Africa, Rec. IV, 852; XII, 868.

the Caucasus, extermination, Rec. VI, 152.

the delta of the Danube, Rec. X, 273.

the Western States, Rec. IX, 667.

1897, Rec. X, 569.

injuries from, Rec. III, 327.

injurious to tobacco, Rec. VIII, 320; X, 1069.

insect enemies, Rec. III, 228.

insecticides for, Rec. IX, 1063.

invasions, studies, Rec. VI, 151.

kerosene emulsion for, Rec. VI, 441.

legislation in Paraguay, Rec. XI, 275.

machines for destroying, Bul. 2, II, 93.

mechanism of generative apparatus, Rec. VI, 236.

natural enemies, Bul. 2, II, 93; Rec. V, 101; X, 466.

notes, Rec. II, 81, 418, 455; III, 53, 55, 228, 784; V, 54, 498, 791, 800; VI, 313, 654; VII, 517; VIII, 905, 906, 998, 1003; IX, 261, 855; X, 169, 268, 369, 766, 866; XI, 370, 760, 864; XII, 770, 974.

on cranberry bogs, Rec. IV, 564.

outbreaks, Rec. V, 51.

parasites, Bul. 2, II, 93; Rec. V, 1031, 1100; VIII, 145; IX, 663; X, 164, 466; XI, 265.

poison in Natal, Rec. X, 571.

prevalence, Rec. IV, 83.

remedies, Rec. VI, 739; VIII, 145, 907; X, 466, 765; XI, 265, 366, 478, 565, 659; XII, 868.

repression, Bul. 2, II, 92, 93; Rec. III, 55; V, 1079.

Lodi, Italy—

Dairy Station at, Rec. IV, 236.

Experiment Station at, Rec. IV, 236.

Experiment Station for Cheese Making, report 1898, Rec. XII, 91.

Loess formation, studies, Rec. XII, 732.

Löffler's bacillus for destroying rodents, Rec. V, 730.

Loganberry—

analyses, Rec. VIII, 691.

culture, Rec. XI, 547.

culture experiments, Rec. VIII, 700.

growing and propagating, Rec. IX, 853.

Loganberry—Continued.

notes, Rec. VI, 637, 817; VII, 36, 308; VIII, 231; IX, 354; XI, 150, 252, 544.

Logwood ashes, analyses, Rec. IV, 903; VI, 287.

Lolium—

arvense, notes, Rec. V, 913.

italicum. (See RYE GRASS, ITALIAN.)

paceyii, notes, Rec. II, 594.

perenne. (See RYE GRASS, PERENNIAL.)

temulentum. (See DARNEL.)

Lombardy cheese, cause of green color, Rec. V, 1061; VI, 673.

Lonchoptera, notes, Rec. XII, 1069.

London Entomological and Natural History Society, Rec. VI, 440.

London purple—

analyses, Bul. 2, II, 59, 87; Rec. VIII, 416; XI, 1100; XII, 67, 822.

and Bordeaux mixture for—

apple scab, Rec. VII, 786.

brown rot of stone fruits, Rec. I, 294.

potatoes, Rec. IV, 561.

small fruits, Rec. V, 792.

and lime, Rec. IV, 417; V, 791.

and lime—

effect on foliage, Rec. III, 97.

for corn bollworm, Rec. V, 791.

and Paris green for—

bagworm, Rec. VIII, 909.

cabbage butterfly, Rec. VII, 144.

codling moth, Rec. VI, 1007.

May beetles, Rec. VIII, 1003.

as an insecticide, Bul. 2, II, 59, 87; Rec. II,

63, 718; IV, 932; V, 62, 63, 64, 685; IX, 67.

composition, Rec. XII, 821.

effect on—

foliage, Bul. 2, II, 32; Rec. I, 227; II, 199,

215, 244; III, 97, 174, 283; V, 684.

for apple scab, Rec. V, 683.

asparagus beetle, Rec. III, 298.

basswood spanworm, Rec. IV, 416.

cankerworms, Rec. V, 593.

codling moth, Bul. 2, I, 101; Bul. 2, II,

32; Rec. I, 11, 63, 294; II, 49, 323, 586, 599,

718; IV, 417; V, 593; VI, 150.

cotton worm, dry application, Rec. II, 193.

cranberry insects, Rec. III, 309.

green fly blight, Rec. VII, 593.

parsnip seed moth, Rec. IV, 416.

plum curculio, Bul. 2, II, 118; Rec. I, 227,

290; III, 64, 103, 290, 599; III, 97.

plum gouger, Rec. II, 104.

potato beetle, Bul. 2, II, 41; Rec. II, 637.

rose chafer, Rec. III, 171.

squash borers, Rec. II, 416.

strawberry slug, Rec. IV, 415.

method of application, Rec. II, 193.

preparation and use, Rec. II, 104, 659, 747;

III, 298; V, 206; XI, 273.

solubility, Rec. III, 174.

with ammoniacal carbonate of copper, Rec. III, 525.

Bordeaux mixture, Rec. II, 217; III, 96.

carbonate of copper, Rec. II, 217.

copper sulphate, Rec. II, 217; III, 525.

kerosene emulsion for elm leaf beetle, Rec. III, 415.

London purple—Continued.

with resin, Rec. II, 217.

soap, Rec. II, 217.

"Lone star" cattle ticks, notes, Rec. VI, 472; XI, 173, 588.

Long bug, notes, Rec. II, 80.

Long-leaf pine straw, analyses, Bul. 2, I, 182.

Long scale. (See SCALE, GLOVER.)

Longerenong Agricultural College, experiments, Rec. VII, 340.

Long-tailed titmouse, Rec. IX, 230.

Longevity—

as affected by grafting, Rec. IX, 948.

of bacteria, Rec. IX, 627.

Longicorn beetle, parasites, Rec. XI, 174.

Lonicera— (See also HONEYSUCKLE.)

alberti, notes, Rec. III, 788.

glauca, notes, Rec. III, 522.

flava, notes, Rec. III, 522.

kylosticum, notes, Rec. III, 788.

sempervirens, notes, Rec. III, 522, 788.

splendens, notes, Rec. III, 788.

spp., notes, Rec. XII, 855.

sullivanti, notes, Rec. IV, 656.

tartarica, notes, Rec. IV, 655.

Lonicera, varieties, Rec. XI, 550.

Lophocelia apiculata, n. sp., notes, Rec. IV, 374.

Lophodermium—

macrosporum, notes, Rec. XII, 254.

pinastri—

notes, Rec. XII, 254, 573.

treatment, Rec. XII, 360.

rubricolum, notes, Rec. X, 725.

Lophodes sinistraria, notes, Rec. IX, 260.

Lophopappus, n. gen., Rec. VI, 487.

Lophophora, revision of species, Rec. VI, 190.

Lophophyton gallinae, notes, Rec. XII, 94.

Lophyrus—

abbottii, notes, Rec. III, 55, 291; IX, 664.

lecontei, notes, Rec. X, 766.

pini, notes, Rec. VIII, 711, 911; XI, 272.

rufus, notes, Rec. VI, 567; X, 65; XI, 272; XII, 468.

Loquat—

disease, treatment, Rec. X, 764.

gummosis, notes, Rec. XI, 59.

notes, Rec. VI, 636.

rot, notes, Rec. XI, 59.

Loquats—

culture, Rec. XI, 252, 547.

pruning, Rec. XI, 1047.

Lotus—

americanus, notes, Rec. X, 245, 542.

argensis, notes, Rec. VI, 114.

corniculatus, notes, Bul. 2, I, 189; Rec. II, 650.

tetragonolobus—

culture experiments, Rec. VI, 807.

notes, Rec. V, 577; VI, 722; VII, 954; VIII,

687; X, 244, 245.

villosus—

analyses, Rec. III, 159.

notes, Rec. II, 580; III, 159.

Lotus, notes, Rec. V, 808.

Louisiana grass—

analyses, Rec. II, 491.

notes, Bul. 2, I, 189; Rec. II, 601.

Louisiana, north, geology, Rec. V, 282; VIII, 382.

- Louisiana, State Agricultural Society of, *Rec. IX*, 999.
- Louisiana, Audubon Sugar School, *Rec. III*, 861; *IV*, 990; *VI*, 174.
- "Louping ill"—
as related to the grass tick, *Rec. XI*, 593, 891.
etiology, *Rec. XII*, 792.
in sheep, *Rec. V*, 341; *VI*, 471; *IX*, 96, 191, 994.
- Louse biting of cattle, *Rec. VIII*, 806.
- Louse-like insects affecting Brazilian plants, *Rec. XI*, 476.
- Love grass, notes, *Rec. X*, 343.
- Low—
areas of Pacific Coast, *Rec. VIII*, 676.
pressure and tidal waves, *Rec. X*, 1018.
- Lowlands, cold air in, *Rec. VIII*, 207.
- Lows as affected by the moon, *Rec. XII*, 317.
- Loxostege*—
*cereal*is ?, notes, *Rec. VI*, 315.
frustalis, notes, *Rec. X*, 62.
maclura, notes, *Rec. IV*, 668; *V*, 101; *VI*, 313.
spp., notes, *Rec. V*, 101, 900.
sticticalis. (*See SUGAR-BEET WEBWORM.*)
- Loxotenia*—
musculana, notes, *Rec. IV*, 839.
rosana, notes, *Rec. XI*, 766.
- Lubricants for glass stopcocks, *Rec. X*, 515.
- Lubricating—
materials, viscosity, *Rec. VI*, 1027.
oils, examination for adulteration, *Rec. V*, 261.
oils, silver nitrate test, *Rec. V*, 454.
- Lubrication, lecture room experiments, *Rec. VIII*, 556.
- Lucanus dama*, notes, *Rec. IX*, 964.
- Lucern. (*See ALFALFA.*)
- Lucern—
sand—
analyses, *Rec. XI*, 842.
culture experiments, *Rec. III*, 860; *VI*, 34.
notes, *Rec. XII*, 636.
yellow, notes, *Rec. V*, 809.
- Luciferase of animals and plants, *Rec. VIII*, 377.
- Lucilia, bibliography, *Rec. XII*, 867.
- Lucilia*—
caesar, notes, *Rec. IX*, 63.
macellaria. (*See SCREW WORM.*)
nobilis, parasitic on man, *Rec. IV*, 373.
- Lucium, chemistry, *Rec. VIII*, 667.
- Luffa*—
acutangula, notes, *Rec. VI*, 218.
cylindrica—
analyses, *Rec. VIII*, 520.
notes, *Rec. VI*, 218.
- Lulea, Sweden, Chemical Plant Biological Station, *Rec. IX*, 1099.
- Lumbricidae, transplantation experiments, *Rec. IX*, 926.
- Lumpy jaw. (*See ACTINOMYCOSIS.*)
- Luna moth, *Rec. XI*, 169.
- Luna moth, growing of wings, *Rec. VIII*, 809.
- Lund, Sweden, Seed Control Station, report, *Rec. VII*, 690; *X*, 259, 554; *XI*, 460; *XII*, 252.
- Lung disease—
of sheep, *Rec. III*, 152.
swine, *Rec. III*, 152.
- Lungs—
analyses, *Rec. IV*, 59.
bacterial flora, *Rec. XI*, 287.
nodes in, *Rec. VIII*, 524.
of horses, translucent tubercles, *Rec. VIII*, 159.
- Lungworm disease— (*See also STRONGYLUS.*)
notes, *Rec. XI*, 995.
of goats, *Rec. XI*, 191.
prevention, *Rec. XI*, 894.
- Lungworms—
notes, *Rec. II*, 79.
of sheep, *Rec. VII*, 252; *IX*, 994; *XII*, 792.
- Lunularia vulgaris* as affected by carbon dioxid, *Rec. XII*, 110.
- Luperina stipata*, notes, *Rec. II*, 80.
- Luperus*—
brunneus, notes, *Rec. IV*, 373.
flavipennis, remedies, *Rec. IX*, 471.
- Lupine—
bacterial disease, *Rec. XI*, 861.
poisoning of stock, *Rec. XI*, 995; *XII*, 891.
seed—
composition, *Rec. XII*, 641.
food value of dried and disimbittered, *Rec. V*, 655.
meal, bread from, *Rec. VI*, 67.
removal of poisonous principles, *Rec. VII*, 708.
white, alkaloids in, *Rec. V*, 252.
yellow, germination tests, *Rec. V*, 910.
yield on inoculated and uninoculated soil, *Rec. V*, 619.
seeds, proteids, *Rec. IX*, 514.
- Lupines—
acquisition of nitrogen, *Rec. III*, 337.
air-dry disimbittered, nutritive value, *Rec. XI*, 73.
alkaloids, *Rec. IX*, 25, 520, 625.
analyses, *Rec. II*, 200; *III*, 375; *XI*, 44.
as affected by—
acids and sodium salts, *Rec. XII*, 1010.
etiolation, *Rec. XII*, 613.
lime, *Rec. VII*, 397, 673; *VIII*, 491, 596; *IX*, 134; *XI*, 643.
as green manure, permanence of effect, *Rec. X*, 583.
black—
composition, *Rec. V*, 264.
digestibility, *Rec. V*, 264.
black Siberian, alkaloids in, *Rec. VI*, 808.
blue—
analyses, *Rec. V*, 171.
as green manure for wheat, *Rec. IV*, 208.
culture experiments, *Rec. IV*, 661; *V*, 171; *VI*, 407; *VII*, 295; *XII*, 844.
for green manuring and for food, *Rec. VII*, 31.
lupinin in, *Rec. III*, 578.
blue mildew, notes, *Rec. IV*, 53.
culture, *Rec. IX*, 446.
culture—
experiments, *Rec. II*, 200, 500, 643; *III*, 82, 159; *IV*, 646; *VI*, 407, 542; *VIII*, 596; *XII*, 641.
experiments in Belgium, *Rec. VI*, 407.

Lupines—Continued.

culture—continued.

in Morbihan, *Rec. VII*, 497.Norway, *Rec. VII*, 210.digestibility, *Rec. II*, 461.disease, new, *Rec. VII*, 410.diseases, notes, *Rec. IV*, 53.disimibittered, *Rec. V*, 347, 437, 655, 1032; *VII*, 708.

disimibittered—

feeding experiment, *Rec. III*, 750.for horses and cows, *Rec. VI*, 163.effect of steaming on nutritive value, *Rec. II*, 461.fertilizing value at different stages of growth, *Rec. XI*, 917.for green manuring, *Rec. V*, 128; *VI*, 412; *VII*, 31, 100, 210, 292; *VIII*, 118, 969; *IX*, 134, 234, 446; *X*, 553; *XI*, 534; *XII*, 1031.hogs, *Rec. X*, 184.fungus diseases, *Rec. V*, 348.germination tests, *Bul. 2*, 1, 30.growth on calcareous lands, *Rec. XII*, 936.harvesting, *Rec. X*, 349.injury by *Mecyna reversalis*, *Rec. IV*, 667.

inoculation of—

clay soils for, *Rec. V*, 435, 1013.soil, *Rec. III*, 499, 553; *VI*, 534; *VII*, 23; *X*, 1012; *XII*, 548.lupinin, and lupinidin, *Rec. III*, 578; *IX*, 520.

nitrogen—

content, *Rec. V*, 347.in, at different dates, *Rec. V*, 700.nitrogenous fertilizers for, *Rec. V*, 850; *VI*, 887.notes, *Rec. XII*, 234, 329, 827.perennial, alkaloids, *Rec. IX*, 625.pestalozzia disease, *Rec. X*, 971.potash for, *Rec. VII*, 674.sand, notes, *Rec. III*, 598.studies, *Rec. X*, 147.varieties, *Rec. IV*, 411; *VII*, 209; *X*, 956; *XII*, 641.

white—

alkaloids, *Rec. VIII*, 470, 670.analyses, *Rec. V*, 171; *VI*, 294; *VII*, 296.as affected by acid sodium salts, *Rec. XI*, 1100.as affected by carbon dioxid, *Rec. XII*, 110.as green manure for wheat, *Rec. IV*, 208.culture, *Rec. VIII*, 596; *XII*, 143.culture experiments, *Rec. IV*, 39; *V*, 38, 171; *VII*, 295.deliquescent alkaloid in, *Rec. V*, 252.notes, *Rec. II*, 200; *III*, 159; *V*, 522; *VI*, 294.seed selection, *Rec. XII*, 143.soil inoculation for, *Rec. V*, 619, 620.

yellow—

analyses, *Rec. V*, 171; *VI*, 294; *VII*, 296.as affected by Nitragin, *Rec. XI*, 515.a green manure for wheat, *Rec. IV*, 208.constituents of cell walls, *Rec. VII*, 748.culture experiments, *Rec. I*, 89, *IV*, 39, 661; *V*, 171; *VI*, 35, 407; *VII*, 295.

Lupines—Continued.

yellow—continued.

galactite from seed of, *Rec. VII*, 834.nitrogen assimilation, *Rec. V*, 616.notes, *Rec. II*, 200; *V*, 616, 871, 844, 910; *VI*, 35, 294.

Lupinin—

in the blue lupines, *Rec. III*, 578.of yellow lupines, *Rec. IX*, 520.

Lupinus—

angustifolius—alkaloids, *Rec. VIII*, 470, 670.composition of seed, *Rec. IX*, 653.constituents of cell walls, *Rec. VII*, 748.*argenteus*—*argophyllus*, notes, *Rec. II*, 321.notes, *Rec. II*, 321.*covillei*, notes, *Rec. VI*, 114.*cruckshankii*, culture, *Rec. VIII*, 596.*formosus*, notes, *Rec. III*, 598.*hirsutus*, notes, *Rec. V*, 449.*micranthus*, notes, *Rec. III*, 599.*mutabilis*, culture, *Rec. VIII*, 596.*nanus*, culture, *Rec. VIII*, 596.*perennis*, notes, *Rec. IX*, 242.Luteol, as an indicator, *Rec. VII*, 91.*Lutra degener*, n. sp., notes, *Rec. IX*, 1030.*Luzula spadicea subcongesta*, notes, *Rec. II*, 321.

Lychnis—

dioica, Dianthus grafted on, *Rec. V*, 1089.*githago*. (See CORN COCKLE.)

Lycoperdon—

bovista, notes, *Rec. VI*, 728.*cyathiforme*, notes, *Rec. IX*, 649; *X*, 551.*gemmatum*, notes, *Rec. IX*, 960.*giganteum*, notes, *Rec. X*, 551.*plumbeum*, notes, *Rec. VI*, 728.

Lycopersicum—

cerasiforme, notes, *Rec. II*, 348.*esculentum*, notes, *Rec. VIII*, 408.

(See also TOMATOES.)

pimpinellifolium, notes, *Rec. II*, 348.Lycopodiums, germination, *Rec. XII*, 350.

Lycopsis arvensis—

notes, *Rec. VIII*, 892.*Puccinia rubigo-vera* on, *Rec. VI*, 233.*Lyctus striatus*, notes, *Rec. III*, 812, *VIII*, 505; *XI*, 764; *XII*, 975.

Lycurus—

phalaroides, notes, *Rec. VIII*, 306.*phleoides*, notes, *Rec. III*, 548.

Lyda—

erythrocephala, notes, *Rec. X*, 374.*multisignata*, notes, *Rec. XII*, 575.*rufipes*—notes, *Rec. IX*, 856.n. sp., *Rec. VIII*, 802.sp., notes, *Rec. V*, 101; *VI*, 312.sp., prevalence, *Rec. IV*, 203.*stellata*, notes, *Rec. X*, 374.

Lye—

analyses, *Rec. XI*, 314.and Bordeaux mixture for plum brown rot, *Rec. IX*, 647.concentrated, analysis, *Rec. X*, 229.for wheat smut, *Rec. II*, 221.wash, preparation and use, *Rec. V*, 206.

Lygæonematus erichsonii, notes, Rec. XII, 264.

Lygus—

lineatus, notes, Rec. II, 81.

lincolaris, notes, Rec. II, 318; V, 352; X, 368.

pratensis. (See PLANT BUG, TARNISHED.)

Lymantria monacha—

bacterial disease, Rec. VI, 63, 566, 568, 1008.

cost of liming against, Rec. X, 69.

injury to pine forests, Rec. IV, 865.

inoculation experiments, Rec. XI, 1064.

notes, Rec. III, 53; VI, 63, 566; VIII, 711; XII, 973, 975.

outbreaks, Rec. XII, 1069.

parasites, Rec. XI, 1065.

remedies, Rec. IV, 865; VI, 63; VIII, 911; XI, 564.

studies, Rec. VI, 63.

Lyme grass. (See ELYMUS.)

Lyneon annulicornis, n. sp., notes, Rec. VI, 739.

Lyntæxylon sericum, notes, Rec. VI, 651; X, 1059; XI, 764.

Lymph—

animal, investigations, Rec. X, 896.

sugar and glycogen of, Rec. VII, 185.

Lymphatic—

glands, reaction to micro-organisms, Rec. XI, 995.

system as related to infection and immunity, Rec. XI, 90.

Lyocytosis and phagocytosis, notes, Rec. XII, 272.

Lyonia clerckella affecting fruits, Rec. XI, 1057.

Lysimeter—

experiments, Rec. X, 930; XII, 1020.

new details of construction, Bul. 2, I, 151.

what it teaches, Rec. II, 269.

Lysimeters—

analysis of drainage from, Bul. 2, I, 161.

observations with, Rec. III, 405.

Lysin, occurrence in germinating seeds, Rec. XI, 1056.

Lysins, relation to agglutinins in anthrax, Rec. XI, 494.

Lysiphlebus sp., notes, Rec. II, 746.

Lysol—

as a fungicide, Rec. VI, 832, 910; VIII, 898.

an antiseptic, Rec. IV, 360.

an insecticide, Rec. V, 822; VI, 442.

for bean anthracnose, Rec. X, 861.

grape mildew, Rec. VI, 831.

oat smut, Rec. IX, 1060.

plant lice, Rec. XII, 664.

suppression of bacteria, Rec. VII, 280.

properties and application, Rec. VII, 411.

Lytta—

atrata. (See EPICAUTA PENNSYLVANICA.)

cinerea. (See MACROBASIS UNICOLOR.)

Macadamia ternifolia, notes, Rec. VIII, 231.

Macaroni—

analyses, Rec. VII, 336; IX, 1078; X, 1088.

digestibility, Rec. X, 180, 1088.

flour, analyses, Rec. XII, 981.

wheats, Rec. XII, 144.

wheats in Australia, notes, Rec. XI, 481.

Macedoine, canned, analyses, Rec. V, 220.

Machine—

for baling cotton, Rec. VII, 432.

calculating milk solids, Rec. X, 413.

harvesting beets, Rec. VI, 346, 541, 848.

home mixing of fertilizers, Rec. VII, 941.

making cheese, Rec. VII, 630.

peeling potatoes, Rec. VI, 848.

oil emulsion for horn fly, Rec. V, 206.

Machinery—

agricultural— (See also HARVESTERS, etc.)

in Denmark, Rec. VII, 258; VIII, 92; XI, 294; XII, 296.

Germany and England, Rec. IX, 697.

United States, Rec. VII, 810.

tests, Rec. V, 796, 932; VI, 755; VII, 164,

258, 431, 810; VIII, 92, 352; IX, 295, 697, 1097.

harvesting sugar beets by, Rec. V, 820; VII, 531, 631; VIII, 688.

haying, improvements, Rec. VII, 72.

international exhibit at Vienna, Rec. VI, 678.

Machines—

cost of mowing with various, Rec. V, 541.

mowing, trial at Aarhus (Denmark), 1892, Rec. V, 541.

regulation of, Rec. IV, 695.

spraying, trials at Cambridge, England, Rec. VI, 442.

Machinist's dietary, Rec. V, 595.

Machronychus glabratus, notes, Rec. II, 5.

Maclura aurantiaca. (See OSAGE ORANGE.)

Macrobasis unicolor—

affecting *Genista tinctoria*, Rec. XI, 762.

notes, Bul. 2, II, 93; Rec. I, 13; II, 734; IV, 354; VI, 151; VIII, 146, 905; IX, 662; X, 164.

remedies, XI, 470.

Macroactylus—

angustatus, notes, Rec. X, 61.

subspinosus. (See ROSE CHAFER.)

uniformis, notes, Rec. IV, 373.

Macrocomys—

costaricensis, notes, Rec. VI, 787.

dolichocephalus, notes, Rec. VI, 787.

Macrolepidoptera of early spring, Rec. X, 770.

Macrophoma vestita, notes, Rec. VI, 909.

Macrops porcellus, notes, Rec. IV, 437.

Macrosila—

carolina, notes, Rec. X, 167.

cingulata, notes, Rec. XI, 62.

Macrosiphum rubicola, notes, Rec. IV, 839.

Macrospores of *Marsilia vestita*, germination, Rec. VI, 487.

Macrosporium—

brassicæ, notes, Rec. III, 307.

herculeum, notes, Rec. X, 260.

longipes, notes, Rec. III, 810.

nigrificantium, notes, Rec. III, 7; IV, 831.

parasiticum—

on garlic, Rec. V, 438.

shallots, Rec. X, 155.

porri, notes, Rec. II, 481.

punctiforme, notes, Rec. III, 290.

sarcinula parasiticum, notes, Rec. II, 481.

solani—

as a cause of potato leaf spot, Rec. IX, 362.

Macrosporium—Continued.*solanii*—continued.

notes, Rec. II, 32; IV, 169; V, 306, 591, 629, 787, 790, 988, 989, 1004; VI, 558, 560; VII, 140, 410; VIII, 407; IX, 851; X, 1053.

treatment, Rec. IV, 169.

sp., notes, Rec. III, 307; XII, 359.

sp., on potatoes, Rec. IV, 49.

tabacinum, notes, Rec. III, 810.

tomato—

notes, Rec. III, 10.

treatment, Rec. IV, 55.

viola, notes, Rec. IX, 659; X, 562.

Macrosporium disease—

new, of squashes, Rec. VI, 268.

of potatoes, Rec. VI, 558.

prevention, Rec. V, 1004.

Macrozamia—

as a cause of rickets, Rec. XI, 1087.

roots, effect on cattle, Rec. XI, 894.

Macrozamia—

moorei, poisonous to stock, Rec. XI, 1057.

spiralis, poisonous to cattle, Rec. XI, 696.

Madder—

culture experiments, Rec. IX, 41.

dyer's, notes, Rec. V, 577.

refuse, analyses, Rec. VII, 670.

Madia, culture experiments, Rec. IX, 41.*Madia*—

sativa, notes, Rec. II, 70, 650; III, 598; IV, 47; IX, 41.

spp., notes, Rec. VI, 822.

Mæsa picta, notes, Rec. V, 619.*Magdalis*—

ænescens, notes, Rec. XI, 863; XII, 161, 368.

armicollis—

notes, Rec. XII, 158.

remedies, Rec. XI, 954.

olyra, notes, Rec. VII, 880; IX, 858.

Magdeburg, Germany, Experiment Station, Rec. V, 364.*Magiria robusta*, life history, Rec. XI, 1066.*Magnesia*—

analyses, Rec. XI, 137; XII, 129.

and potash—

carbonate, analyses, Rec. IV, 912.

sulphate, analyses, Rec. III, 168, 764; IV, 902.

sulphate for tobacco, Rec. IV, 908, 909.

causing bitter taste in butter, Rec. XI, 587.

detection in limestone, Rec. VII, 834.

determination, Rec. VI, 110, 503; XII, 20.

determination—

by titrating ammonium-magnesium phosphate, Rec. V, 1026.

in ashes, Rec. XI, 213.

limestone, Rec. VIII, 25.

soils, Rec. VI, 120; VII, 845.

effect on—

different plants, Rec. XI, 1023.

wheat, Rec. IX, 749.

fertilizing value, Rec. VII, 756.

for refining diffusion juice, Rec. V, 735.

importance in agriculture, Rec. IV, 614.

Magnesia—Continued.

mixture—

action on glass, Rec. VII, 17.

for determining phosphoric acid, Rec. XI, 108.

precipitating monosodium phosphate, Rec. XI, 108.

preparation, Rec. XI, 109.

Magnesium—

action on metallic solutions, Rec. V, 538.

carbonate, analyses, Rec. X, 919.

effect on plants, Rec. V, 649.

light, effect on plants, Rec. V, 127, 649.

nitrate, basic, Rec. VII, 834.

phosphate, determination of phosphoric acid as, Rec. V, 433.

Madeira, grapes, notes, Rec. II, 629.

pyrophosphates, determination of phosphoric acid as, Rec. VI, 15; VIII, 192.

salts—

function in plants, Rec. IV, 221.

physiological rôle, Rec. XI, 1008.

sulphate, analyses, Rec. X, 919.

Magnetic—

and meteorological observations and computations, Rec. IX, 424, 426.

conference, report, Rec. XII, 920.

declination, Rec. XII, 1098.

declination, discovery, Rec. VII, 281.

instruments, construction, Rec. VII, 282, 283.

needle, secular change in direction of, Rec. V, 1087.

observations, Rec. XII, 920.

observations, method for discussing, Rec. IV, 199.

survey of—

Europe and Asia, Rec. VII, 280.

North America, Rec. VII, 280.

Magnetism, solar and terrestrial, as related to meteorology, Rec. X, 26.*Magnolia*—

anthracnose, notes, Rec. IX, 657.

ash analyses, Rec. I, 27.

Lecanium on, Rec. IX, 1070.

pruning, Rec. XII, 559.

Magnolia—

glauca, notes, Rec. VI, 300.

spp., notes, Rec. IV, 655.

Magpie lark, notes, Rec. X, 93.*Magpie* moth, Rec. VII, 231.*Maguay*, notes, Rec. V, 94.*Mahaleb* stocks for cherries, Rec. II, 217.*Mahogany*, mountain, notes, Rec. III, 522.*Maidenhair* fern, culture, Rec. I, 37.*Maidenhair* tree. (See GINGKO.)*Maintenance* ration of cattle, Rec. X, 1079; XI, 483.*Maize*— (See CORN.)

feed—

analyses, Rec. IV, 64, 176, 177; V, 194, 312; VI, 163, 931; VIII, 104.

Chicago, analyses, Rec. VII, 336.

Chicago, digestibility, Rec. VII, 317.

- Maize—Continued.
 feed—continued.
 Chicago, digestibility, Rec. VII, 317.
 Chicago, for cows, Rec. VII, 972.
 foods, analyses, Rec. X, 475.
 germ—
 cake, analyses, Rec. VIII, 821.
 molasses for lambs, Rec. XII, 583.
 milo. (See MILO MAIZE.)
 new process for milling, Rec. VII, 155.
Mala ethiopica, notes, Rec. II, 739.
Malachra capitata—
 as a fiber plant, Rec. VIII, 125.
 chemical studies, Rec. VIII, 687.
 Maladie du coit— (See also DOURINE.)
 among horses in Nebraska, Rec. V, 608.
 extirpation, Rec. VIII, 626.
 Malaria—
 bovine, Rec. XI, 289.
 of cattle, Rec. IX, 193.
 horses, Rec. XII, 792.
 parasites, development in mosquitoes, Rec. XII, 293.
 studies, Rec. XI, 92.
 Malarial fever—
 epidemiology, Rec. XII, 485, 889.
 mosquito theory, Rec. XII, 663.
 prophylaxis, Rec. XII, 485, 596.
 relation to mosquitoes and drinking water, Rec. XII, 663.
 Malate in plants, Rec. IX, 812.
 Malay Peninsula, flora of, Rec. VI, 196.
 Malic acid—
 determination, Rec. V, 252.
 in raisins, determination, Rec. X, 413.
 tobacco, Rec. X, 1004.
 physiological behavior, Rec. IX, 524.
 separation from succinic, citric, and tartaric acids, Rec. IV, 314.
 studies, Rec. XI, 614.
Malipighia punicifolia, notes, Rec. VI, 221.
 Mallein— (See also GLANDERS.)
 as a remedy for glanders, Rec. VI, 80.
 effect on glanders, Rec. IX, 389.
 experiments with, Rec. V, 608; X, 395.
 for diagnosing glanders, Rec. IV, 620; V, 78; VI, 80, 471, 666, 932; VII, 156, 252; VIII, 85, 525; IX, 192, 389, 391; X, 893; XI, 896, 993; XII, 95.
 diagnosing tuberculosis, Rec. VI, 666.
 preparation and composition, Rec. VII, 156.
 problem, review of literature, Rec. XI, 896.
 test for glanders, Rec. XI, 285, 594, 889, 896, 993; XII, 95, 488, 491.
 treatment for glanders, Rec. XII, 292, 885, 893.
 value, Rec. XII, 800.
 Mallophaga—
 affecting birds and mammals of North America, Rec. XII, 867.
 of American birds, Rec. VII, 880.
 origin of parasitism, Rec. III, 547.
 parasitic, on birds, Rec. VIII, 416.
Mallophaga—
 n. sp., notes, Rec. VII, 968.
 sp., notes, Rec. II, 303.
 Mallophagidae, notes, Rec. VI, 654.
 Mallow—
 heliotropism, Rec. V, 663.
 root system, Rec. IV, 45.
 round-leaved, notes, Rec. V, 398.
 Malophosphate of lime in plants, Rec. IX, 812.
 "Malsania"—
 of *Corylus avellana*, Rec. X, 59.
 Corylus avellana, cause, Rec. IX, 1061.
 Malt—
 acid content, estimation, Rec. VI, 376.
 and barley for sheep, Rec. IV, 609.
 and wort, cane sugar in, Rec. VI, 376.
 carbohydrates in, Rec. IV, 612; V, 648, 1102; X, 79.
 chemistry and physiology, Rec. VIII, 466.
 coffee, Rec. IX, 274.
 determination of—
 diastatic power, Rec. VIII, 198, 459.
 saccharose in, Rec. VI, 868; VIII, 460.
 diastase for saccharification of starch, Rec. XI, 715.
 distillery, effect on alcohol in milk, Rec. XI, 284.
 enzymes, Rec. VII, 657.
 examination, Rec. XI, 618.
 extract—
 Kjeldahl method for analysis, Rec. X, 19.
 yielded, Rec. II, 4, 6, 7, 87.
 extracts, examination, Rec. XI, 970.
 formation of starch and sugar, Rec. X, 223.
 fungi, studies, Rec. VII, 658.
 hulls, analyses, Rec. XI, 279; XII, 70.
 investigations, Rec. X, 1017.
 liquors, analyses, Rec. XI, 769.
 pentosans, Rec. X, 412.
 phosphoric acid in, Rec. VIII, 330.
 preparations as food, Rec. XII, 676.
 proteids, composition, Rec. VIII, 369.
 proteolytic—
 diastase, Rec. XII, 722.
 diastase as affected by mineral substances, Rec. XII, 723, 916.
 skimmings, analyses, Rec. XII, 169.
 sprouts—
 analyses, Rec. I, 15, 282; II, 295, 504; III, 13, 296, 301, 878; IV, 935; V, 194; VI, 444; VII, 155; VIII, 426; IX, 479; X, 275, 276; XII, 161, 281, 877.
 and molasses for cows, Rec. XI, 885, 888.
 cost and valuation, Bul. 2, I, 53.
 description, Rec. XI, 971.
 digestibility, Bul. 2, I, 132.
 fat content, Rec. V, 801.
 feeding experiments, Rec. VII, 63.
 feeding value, Rec. IX, 479.
 fertilizing constituents, Bul. 2, I, 183.
 starch and sugar formation, Rec. IX, 329; X, 417.
 "Malton wine," examination, Rec. IX, 895.
 Maltose—
 and trehalose, Rec. VII, 462.
 determination by Fehling's solution, Rec. VII, 271.
 fermentation by *Oidium lactis*, Rec. V, 919.

Maltose—Continued.

- glucose content, *Rec. VII*, 20.
- identification *Rec. X*, 920.
- rotatory power, *Rec. VII*, 271, 366; *IX*, 225, 418.

Malva—

- borealis*, notes, *Rec. IX*, 142.
- parviflora*, notes, *Rec. III*, 598, 599.
- rotundifolia*—
 - notes, *Rec. V*, 398.
 - root system, *Rec. IV*, 45.

Malvaceæ—

- grafting experiments, *Rec. XII*, 854.
- mucilage cells, *Rec. IX*, 1027.
- synopsis of genera and species, *Rec. IV*, 692, 984.

Malvaceæ, n. sp., *Rec. VII*, 657.Malvastrum coccineum, notes, *Rec. III*, 52.

Mamestra—

- brassicæ*, notes, *Rec. VIII*, 809.
- legitima*, notes, *Rec. XI*, 472.
- picta*—
 - description and treatment, *Rec. IV*, 254.
 - notes, *Rec. II*, 482, 664; *V*, 101, 685, 686.
 - VII*, 144; *VIII*, 146, 418; *IX*, 856; *X*, 164, 165, 766, 871, 1067.
- pisi*, notes, *Rec. IX*, 965.
- renigera*, notes, *Rec. II*, 719; *VIII*, 66.
- sp., notes, *Rec. V*, 101.
- subjuncta*, notes, *Rec. VI*, 915; *VIII*, 241, 905.
- trifolii*, notes, *Rec. V*, 685; *IX*, 458, 856; *X*, 165; *XI*, 471.

Mamillaria, anatomy, *Rec. VIII*, 670.Mamirolle, France, Dairy School and Experiment Station at, *Rec. VI*, 344.Mammæ apple, notes, *Rec. VI*, 636.Mammæ sapota, notes, *Rec. VI*, 636.Mammalia, domestic, physiology of, *Rec. IX*, 683.

Mammals—

- as affected by subcutaneous injections of sugar solutions, *Rec. XI*, 483.
- composition and food value, *Rec. XII*, 282.
- insectivorous, of Canada, *Rec. X*, 25.
- North American, description of, *Rec. II*, 258.
- of Oregon, *Rec. II*, 374.
- the District of Columbia, *Rec. VIII*, 473.

Mammary gland—

- anatomy and physiology, *Rec. XII*, 80.
- extraction of micro-organisms, *Rec. XI*, 286, 387.

Mammitis—

- gangrenous, of the goat, *Rec. XI*, 191.
- infectious, in Massachusetts, *Rec. XI*, 1087.
- of cows—
 - infectious, treatment, *Rec. XII*, 687.
 - nature and treatment, *Rec. X*, 494.
 - notes, *Rec. III*, 152; *VII*, 251, 618, 893; *X*, 494; *XII*, 194, 292.
- tubercular, *Rec. VII*, 893.
- tubercular, in cows and goats, *Rec. XII*, 1088.

Man—

- actinomycosis, *Rec. X*, 496.
- anthrax in, *Rec. VII*, 156.
- as affected by—
 - moisture content of air when no muscular work is done, *Rec. IX*, 88.
 - rarefied air, *Rec. IX*, 276.
 - volatile extract of tea, *Rec. X*, 281.

Man—Continued.

- conflict with climate, *Rec. XI*, 430.
- digestion experiments, *Rec. IX*, 679, 778, 780, 782, 1078; *X*, 79, 172, 184, 375, 381, 662, 663, 876; *XI*, 175, 376, 479, 659, 660, 661, 672, 959; *XII*, 274.
- foot-and-mouth disease in, *Rec. XI*, 695.
- health and strength as affected by food, *Rec. VII*, 708.
- nitrogen excretion, diurnal variation, *Rec. IX*, 275.
- nutrition, *Rec. X*, 481.
- nutrition in health and disease, *Rec. VIII*, 331.
- physiological effect of copper, *Rec. IX*, 982.
- plants poisonous to, *Rec. XI*, 112.
- respiration experiments, *Rec. VI*, 332; *VIII*, 149, 150; *IX*, 863; *X*, 471, 481; *XII*, 871, 981.
- thysanurous parasite, *Rec. VIII*, 69.

Mandarins, analyses, *Rec. VII*, 582.Mandioca— (*See also* CASSAVA.)

- amarga, analyses, *Rec. XII*, 337.
- dulce, analyses, *Rec. XII*, 337.

Mandura—

- analyses, *Rec. IX*, 129.
- beans, analyses, *Rec. XI*, 249.

Manganese—

- determination, *Rec. IX*, 1023; *X*, 820.
- determination—
 - in animals, *Rec. X*, 605.
 - minerals, *Rec. X*, 605.
 - plants, *Rec. IX*, 1023; *X*, 605.
 - presence of phosphoric acid, *Rec. VIII*, 286.
- salts, oxidizing effect, *Rec. IX*, 229, 418.

Mange—

- notes, *Rec. XI*, 793.
- of dogs, treatment with Epicarin, *Rec. XI*, 870; *XII*, 793.
- swine, notes, *Rec. III*, 152.
- sarcoptic, of cattle, notes, *Rec. XII*, 685.

Mangel-wurzel—

- and beet rust, *Rec. VI*, 560.
- fly, *Rec. V*, 740; *VI*, 65, 316; *VII*, 882; *IX*, 74.
- leaves, preservation for feed, *Rec. III*, 887.

Mangel-wurzels—

- analyses, *Bul. 2*, II, 78; *Rec. II*, 334; *III*, 133, 357; *IV*, 64, 437; *V*, 66, 596; *VI*, 37, 410, 1008; *VII*, 296, 336, 677, 702; *IX*, 919; *XI*, 71; *XII*, 70.
- and carrots *v.* barley for pigs, *Rec. VII*, 243.
- sugar beets *v.* silage for cows, *Rec. VI*, 446; *VII*, 240, 976.
- swedes for cows, *Rec. XII*, 884.
- barnyard manure for, *Rec. III*, 887; *V*, 705, 713, 933.
- conditions affecting feeding value, *Rec. XII*, 1038.
- continuous cropping with, *Rec. III*, 887.
- cost of production, *Rec. XI*, 340; *XII*, 632.
- culture experiments, *Bul. 2*, I, 89; *Bul. 2*, II, 83; *Rec. III*, 886; *IV*, 725; *VI*, 532, 890, 985; *VIII*, 223, 402; *IX*, 131; *XI*, 832; *XII*, 536.
- culture, ridge *v.* level, *Rec. X*, 1035.
- digestibility, *Rec. IV*, 570.
- disease, undetermined, *Rec. IX*, 957.
- experiments in India, *Rec. V*, 333.

Mangel-wurzels—Continued.

- fertilizer experiments, *Bul.* 2, II, 83; *Rec.* I, 87; V, 47, 171, 705; VII, 32, 579; IX, 830; X, 836, 848; XI, 140, 632, 833, 838, 842; XII, 229, 441, 536, 547, 849.
 - food constituents, *Rec.* VII, 675.
 - for cows, *Rec.* III, 216; VI, 460; VII, 976; VIII, 528; XI, 678.
 - lambs, *Rec.* IV, 356; XI, 181.
 - pigs, *Rec.* II, 737; IV, 262; XI, 667.
 - sheep, *Rec.* VI, 156; XI, 773.
 - steers, *Rec.* V, 633; XI, 773.
 - germination tests, *Rec.* I, 295.
 - in England, *Rec.* VIII, 975.
 - rotation, *Rec.* V, 713.
 - liquid manure for, *Rec.* V, 525.
 - planting at different—
 - depths, *Rec.* X, 238; XI, 631.
 - distances, *Rec.* V, 623; X, 237.
 - rates, *Rec.* V, 47.
 - thinning, *Rec.* X, 238.
 - transplanting, *Rec.* III, 887.
 - varieties, *Bul.* 2, I, 25; *Rec.* I, 87; II, 4, 6, 7, 69, 109; III, 128, 356, 360, 480, 719, 743, 886; IV, 436, 760, 819; V, 623, 624, 625; VI, 36, 416, 417, 418, 419; VII, 579, 580, 581, 676; VIII, 889, 972, 973; IX, 827, 829, 830, 832, 833; X, 237, 836, 846, 1034; XI, 144, 631, 633, 842; XII, 135, 229.
 - v.* corn silage for lambs, *Rec.* VII, 240; IX, 481.
 - grain for pigs, *Rec.* V, 429.
 - silage for cows, *Rec.* III, 404.
 - v.* sugar beets for—
 - cows, *Rec.* IV, 440; XI, 688; XII, 389.
 - stock feeding, *Rec.* III, 887.
 - yield—
 - and food value per acre, *Rec.* IV, 568.
 - in Great Britain, *Rec.* III, 835.
- Mango blight, notes, *Rec.* VI, 234.
- Mango caterpillar, notes, *Rec.* XI, 1063.
- Mangoes—
- culture, *Rec.* VI, 819; X, 440.
 - grafting, *Rec.* XII, 559.
 - in cold storage, *Rec.* V, 909.
 - notes, *Rec.* VI, 636, 819; XII, 346.
 - preserving, *Rec.* VI, 424.
 - varieties, *Rec.* XI, 51, 352.
- Mangolds, artificial fertilizers *v.* Ceres treatment, *Rec.* X, 432.
- Mangosteen, notes, *Rec.* VI, 636, 819.
- Mangrove plants, viviparous, endosperm, *Rec.* V, 818.
- Manihot*—
- apii*, notes, *Rec.* III, 444.
 - spp., emulsion in, *Rec.* VI, 837.
 - utilissima*, analyses, *Rec.* XII, 337, 1076.
- Manila—
- aloe fiber, *Rec.* V, 130.
 - weather, *Rec.* X, 326; XI, 30.
- Manioc—
- analyses, *Rec.* X, 678.
 - ash, analyses, *Rec.* X, 678.
 - flour, analyses, *Rec.* X, 678.
- Manitoba maple, notes, *Rec.* VI, 427.
- Mannan—
- as human food, *Rec.* VI, 655.
 - formation in *Amorphophallus konjak*, *Rec.* IX, 220, 523.

Mannan—Continued.

- in the root of *Conophallus konyaku*, *Rec.* VII, 462, 915.
 - the seeds of *Diospyros kaki*, *Rec.* VI, 386.
- Mannite—
- fuel value, *Rec.* III, 386.
 - in the fruit of the cherry laurel, *Rec.* III, 749.
 - wine, determination, *Rec.* V, 440; VI, 503, 869; VII, 363; IX, 419.
 - plants containing, *Rec.* VII, 838.
- "Mannited" wines, study, *Rec.* V, 440, 1102.
- Mannitic fermentations of wines in Sicily, *Rec.* VI, 251.
- Mannocellulose in liqueous tissue of gymnosperms, *Rec.* XII, 214.
- Mannose—
- crystallized *Rec.* VII, 834.
 - preparation, *Rec.* VII, 557.
 - production in carob seed, *Rec.* XI, 1056.
- Man-of-the-earth—
- notes, *Rec.* V, 398.
 - root system, *Rec.* IV, 45.
- Mantis egg parasites, *Rec.* III, 811.
- Manual—
- labor in connection with educational work, *Rec.* IV, 696.
 - training—
 - and apprenticeship system, *Rec.* VI, 486.
 - in technical schools, *Rec.* VI, 264.
- Manure— (*See also* BARNYARD MANURE.)
- action of pepsin solution on, *Rec.* II, 267.
 - aerobic fermentation of, *Rec.* V, 147, 149.
 - and denitrifying bacteria, *Rec.* IX, 740.
 - bacteria in, as affected by food, *Rec.* VII, 942.
 - box, description, *Rec.* VI, 631.
 - chemical *v.* barnyard, *Rec.* VII, 670.
 - composting, *Rec.* VII, 25.
 - deep-stall system for conservation of, *Rec.* IX, 838.
 - denitrification, *Rec.* XI, 830; XII, 124.
 - determination of nitrogen—
 - and phosphoric acid in, *Rec.* V, 802.
 - in, *Rec.* VII, 111.
 - effect on—
 - nitrogen content of soils, *Rec.* X, 426.
 - soil temperature, *Rec.* VIII, 299.
 - starch content of potatoes, *Rec.* VIII, 223.
 - fermentation, *Rec.* IV, 614.
 - fertilizing constituents, *Rec.* V, 390.
 - fish—
 - analyses, *Rec.* V, 621.
 - as a fertilizer, *Rec.* VI, 400.
 - for frit fly, *Rec.* IX, 74.
 - natural meadows, *Rec.* V, 437; VI, 45.
 - from animals fed linseed meal, *Rec.* VIII, 575; IX, 435.
 - calves, amount, *Rec.* V, 388; VI, 397.
 - from cattle—
 - amount, *Rec.* V, 634.
 - analyses, *Rec.* VIII, 485.
 - concentrated, *Rec.* V, 346.
 - from cities, use, *Rec.* IX, 123.
 - from cows—
 - amount voided daily, *Rec.* II, 592.
 - analyses, *Rec.* III, 764; V, 143, 524; XII, 322.
 - experiments, *Rec.* V, 523.

Manure—Continued.

- from cows—continued.
 - production, *Rec. IV*, 65, 66; *V*, 388.
 - value, *Rec. III*, 91.
- from different animals, comparison, *Rec. V*, 35.
 - geese, analyses, *Rec. VI*, 202; *VII*, 294.
 - goats, analyses, *Rec. VIII*, 153.
- from hens—
 - analyses, *Bul. 2*, 1, 42; *Rec. II*, 232, 588; *III*, 162, 523, 764; *IV*, 25; *VIII*, 117; *XI*, 1026; *XII*, 39, 226.
 - composting and use, *Rec. VII*, 757.
 - value, *Rec. II*, 588.
- from horses—
 - amount, *Rec. VI*, 127.
 - analyses, *Rec. V*, 164, 389.
 - fermentation, *Rec. V*, 651.
- from lambs, *Rec. IV*, 68.
- from pigs—
 - analyses, *Rec. V*, 143; *XI*, 314.
 - production, *Rec. V*, 388.
 - value, *Rec. II*, 76; *III*, 91.
- from rabbits, *Rec. VI*, 287.
 - sewage, manufacture, *Rec. V*, 436.
- from sheep—
 - analyses, *Rec. VI*, 980; *VII*, 195; *VIII*, 117, 300; *IX*, 939; *XI*, 831; *XII*, 39, 931, 933.
 - fertilizing constituents, *Rec. V*, 143.
 - loss of nitrogen in drying, *Rec. V*, 28.
 - production, *Rec. V*, 387.
 - value, *Rec. II*, 232; *III*, 91; *XI*, 229.
- from steers—
 - loss in drying, *Rec. V*, 28.
 - value, *Rec. XI*, 229.
- functions and composition, *Rec. IX*, 36.
- gas, composition, *Rec. V*, 147.
- hair, analyses, *Rec. IV*, 25.
- heaps, losses from, *Rec. XII*, 736.
- hygiene in relation to, *Rec. XI*, 32.
- kraal, analyses, *Rec. XI*, 526.
- leachings—
 - analyses, *Rec. V*, 153, 165.
 - mineral matter in, *Rec. V*, 153.
- liquid—
 - analyses, *Rec. V*, 524.
 - distributors, *Rec. IX*, 1043.
 - experiments, *Rec. V*, 523, 525; *IX*, 34.
 - for plants, *Rec. III*, 107; *XI*, 242.
 - sugar beets, *Rec. III*, 926.
 - tomatoes, *Rec. IV*, 653; *V*, 584.
 - new method of applying, *Rec. VII*, 379.
 - preservation, *Rec. V*, 524.
 - preservatives for, *Rec. VII*, 939.
- loss of nitrogen in, *Rec. IV*, 614, 686, 783; *V*, 116, 151, 820; *VII*, 292; *VIII*, 682, 760; *X*, 132, 133, 731.
- nitrogen in, *Rec. V*, 142, 147, 152, 153, 387.
- metabolic products, *Rec. II*, 267.
- nitrate and carbon bisulphid, *Rec. VII*, 25.
- origin of—
 - ferments, *Rec. V*, 147.
 - nitrogenous substances, *Rec. V*, 150.
- peat, *Rec. VI*, 287.
- permanent effect on meadows, *Rec. IX*, 45.
- pits, *Rec. X*, 623.
- pits, construction, *Rec. XII*, 38.

Manure—Continued.

- platform, description, *Rec. II*, 598; *X*, 797.
 - preparation, *Rec. IV*, 518, 589.
 - preservation, *Rec. VI*, 203, 515; *VII*, 292, 490, 756; *VIII*, 485, 584, 759; *IX*, 338; *X*, 133; *XII*, 733, 1036.
 - preservation experiments, *Rec. XII*, 733.
 - preservatives, *Rec. IV*, 452, 688, 964, 985; *V*, 330; *XI*, 135, 829.
 - protection, *Rec. VII*, 111.
 - relation to plant evaporation, *Rec. VI*, 798.
 - residues from feeding experiments, value, *Bul. 2*, 11, 43.
 - rôle of bacteria, *Rec. VII*, 279; *IX*, 228; *X*, 35.
 - salt, double, analyses, *Rec. VIII*, 767; *X*, 716.
 - solid *v.* liquid, *Rec. V*, 35.
 - spreaders, tests, *Rec. XII*, 96.
 - stable—
 - and green, nitrogen content, *Rec. V*, 924.
 - tobacco stems, analyses, *Rec. XII*, 933.
 - storage, *Rec. XII*, 320.
 - under animals, effect on availability of phosphate of lime, *Rec. VII*, 490.
 - utilization of nitrogen, *Rec. V*, 1098; *VII*, 25.
 - value of—
 - nitrogen of, *Rec. V*, 924, 1098; *X*, 834; *XI*, 435.
 - silt, *Rec. IX*, 333.
 - yards and urine pits, construction, *Rec. VII*, 757; *X*, 797.
- Manures—
- agricultural, *Rec. VIII*, 116.
 - and composts, *Rec. X*, 734.
 - manuring, text-book, *Rec. V*, 1029.
 - animal, effect on marsh soils, *Rec. XI*, 627.
 - application, *Rec. XI*, 229; *XII*, 745.
 - calcareous, experiments in Campine, Belgium, *Rec. V*, 230.
 - concentrated, injurious effects, *Rec. VIII*, 767.
 - drying samples, *Rec. III*, 615.
 - farm, economic value, *Rec. X*, 35.
 - homemade, *Rec. V*, 569.
 - homemade, care, *Rec. XI*, 497.
 - management and use, *Rec. VI*, 521.
 - nitrification, *Rec. III*, 139, 899.
 - of Egypt, *Rec. XI*, 437.
 - production of humus from, *Rec. IX*, 632.
 - relation to hygiene, *Rec. XI*, 32.
 - residual effects, *Rec. XII*, 41.
 - tobacco, *Rec. VIII*, 688.
 - unexhausted residue, *Rec. V*, 708.
 - use, *Rec. IV*, 248, 315, 518; *VIII*, 969.
 - use, excessive, *Rec. IX*, 543.
 - valuation, *Rec. IV*, 248.
- Manuring—
- agricultural plants, *Rec. V*, 255.
 - asparagus, *Rec. VI*, 142; *IX*, 245.
 - bananas, *Rec. VII*, 217.
 - barley, effect on growth and assimilation, *Rec. IX*, 1027.
 - cost in farming with and without stock, *Rec. VI*, 202.
 - cotton, *Rec. IV*, 814; *VIII*, 401, 687; *IX*, 348.
 - development of theory, *Rec. V*, 539.

Manuring—Continued.

effect on—

- light v. heavy, Rec. IX, 347.
- malting quality of barley, Rec. IX, 436.
- quality of wine, Rec. VII, 36, 772.
- soil fertility, Rec. IX, 36.
- experiments, Rec. VII, 756; VIII, 581.
- experiments in Staffordshire, Rec. VIII, 584.
- fruit trees, Rec. VII, 505.
- green crops for, Rec. X, 35.
- hay, Rec. VIII, 596.
- intensive, Rec. X, 835.
- light soils, Rec. VIII, 485.
- meadows, Rec. VII, 497, 573, 681; VIII, 307.
- methods, Rec. V, 436; VI, 518.
- orchards, Rec. VIII, 408.
- pineapples, Rec. VIII, 496.
- potatoes, Rec. IX, 833.
- practical guide for, Rec. VI, 202.
- principles of, Rec. IV, 248.
- residual effect on corn, Rec. VIII, 302; IX, 347.

studies, Rec. VIII, 299.

systems, Rec. VII, 852.

underground, Rec. VII, 572.

underground for sugar beets, Rec. VII, 397.

wheat, Rec. VII, 952; IX, 446.

winter grains, Rec. VIII, 596.

Maple—

ash-leaved—

- cost of planting, Rec. XI, 854.
- notes, Rec. III, 521; XI, 852, 853.
- black-leaf spot, notes, Rec. XI, 552; XII, 767.
- borer, sixteen-legged, notes, Rec. VIII, 321.
- California ash-leaved, Rec. IX, 563.
- cut-leaved, notes, Rec. IV, 654.
- English, notes, Rec. VII, 134.
- gall moth, notes, Rec. VI, 654.
- grafting in open air, Rec. V, 1018.

hard—

- blight, treatment, Rec. XI, 753.
- notes, Rec. III, 788.
- in beech forests, Rec. XII, 653.
- large-leaved, notes, Rec. VII, 133.
- leaf blight, notes, Rec. X, 824; XII, 254.
- leaf blotch, notes, Rec. XII, 573.
- leaf buds, lecithin content, Rec. V, 803.
- leaf louse, notes, Rec. VIII, 415; X, 1060.
- leaf scorch, Rec. XI, 1058.
- leaf wilt, notes, Rec. IX, 325.
- leaves, *Uncinula prunastri* on, Rec. VII, 513.
- Manitoba, notes, Rec. VI, 427.
- moth, notes, Rec. VI, 1008.
- mountain, notes, Rec. III, 521.
- Norway, notes, Rec. IV, 654.
- pseudococcus, notes, Rec. VI, 739; VIII, 147, 904; IX, 664; X, 457.

red—

- ash analyses, Rec. I, 26.
 - notes, Rec. IV, 654.
 - Rittenbach, notes, Rec. IV, 654.
- sap—
- analyses, Rec. IX, 808.
 - composition, Rec. VII, 90; VIII, 348.
- scale, cottony. (See SCALE, COTTONY MAPLE.)
- Schwedler, notes, Rec. IV, 654.

Maple—Continued.

silver—

- notes, Rec. II, 663, 741; III, 521; VII, 133; VIII, 314, 604.
- sirup—
- analyses, Rec. VI, 942; IX, 808; X, 281; XI, 769.
 - notes, Rec. VII, 134, 162.
 - production, Rec. IV, 195; VII, 257, 993.
- soft, notes, Rec. II, 741; IV, 654, 829.
- sugar—
- analyses, Rec. IV, 475; V, 312; VI, 942; IX, 808; XII, 78.
 - and maples in winter, Rec. V, 659.
 - as affected by forest tent caterpillar, Rec. XI, 269; XII, 69, 166.
 - borer, notes, Rec. X, 569.
 - borer, remedies, Rec. VIII, 319.
 - bounty, Rec. III, 101.
 - flavor of, Rec. V, 939.
 - making, Rec. III, 246; IV, 495; V, 937; XI, 318.
 - notes, Rec. III, 521; IV, 654; V, 884; VII, 134.
 - sap pressure and flow, Rec. XI, 318.
 - testing, Rec. III, 246.
- Tartarian, notes, Rec. IV, 654.
- tree bark louse, Rec. III, 176, 792; V, 884.
- tree borer, Bul. 2, II, 92; Rec. VIII, 146.
- tree dagger moth, enemies, Rec. II, 116.
- twig borer, Rec. X, 1068.
- worm, green striped—
- enemies, Rec. II, 116.
 - notes, Rec. I, 120; II, 81, 116; III, 53; IV, 203; V, 101.

Maples—

- at Illinois Station, Rec. V, 305.
- Norway—
- fungus disease, Rec. IX, 56.
 - injury to foliage, Rec. X, 260.
- notes, Rec. II, 512, 741.
- rate of growth, Rec. IV, 45.
- sugar, of Michigan, Rec. VI, 487; VII, 961.
- tapping—
- deep and shallow, Rec. VI, 942; VII, 92; VIII, 248.
 - on north and south sides, Rec. VII, 93.
 - variation in, Rec. VIII, 794.

Marantaceæ, Ecuador species, Rec. IV, 692.

Marasmius—

- orcadæz*, notes, Rec. IX, 649; X, 551.
- sacchari*—
- new species, a cause of sugar cane disease, Rec. VII, 695.
 - notes, Rec. VII, 695; VIII, 237; X, 57, 266.
- semiustus*, notes, Rec. XII, 573.
- sp., structure of hymenium, Rec. VII, 19.

Marattiaceæ, mucilage canals, Rec. VII, 277.

Marble, analyses, Rec. IV, 27.

Marburg, Germany, Experiment Station, report, Rec. III, 263; VIII, 1034.

Marchal, P., bibliography of, Rec. XI, 959.

Marchantia polymorpha, as affected by carbon dioxid, Rec. XII, 110.

Mares—

- abortion. (See ABORTION.)
- breeding experiments with zebras, Rec. XI, 1077.

Mares—Continued.

- infectious abortion, *Rec. III*, 729.
- milk— (*See MILK.*)
- prolonged gestation in, *Rec. IX*, 593.
- spaying, *Rec. IX*, 391.

Margarine— (*See also OLEOMARGARINE.*)

- and butter—
- manual, *Rec. XI*, 390.
- method of differentiating, *Rec. V*, 260, 727, 922; *IX*, 420; *XI*, 112.

behavior toward coloring matters, *Rec. IV*, 97.

cheese— (*See also CHEESE, FILLED.*)

- detection, *Rec. VII*, 158; *IX*, 420, 521.
- examination, *Rec. VII*, 161, 273; *XII*, 485.
- manufacture, *Rec. V*, 1060.

composition, *Rec. IV*, 217.

cryoscopy, *Rec. XI*, 618.

denaturation, *Rec. X*, 1096.

detection, *Rec. II*, 533; *III*, 832, 929; *IV*, 96, 616, 781; *V*, 26, 260, 440, 727, 922; *VI*, 189, 372; *VIII*, 201, 459, 466; *IX*, 420, 521; *X*, 118; *XI*, 112, 814, 888; *XII*, 108, 611.

detection—

- Brullé method for, *Rec. VII*, 272.
- by Penmetier's method, *Rec. III*, 929.
- sulphuric acid test, *Rec. V*, 126.
- of sesame oil in, *Rec. IX*, 887, 1024.

determination, *Rec. V*, 126, 260, 440, 727; *X*, 108.

digestibility, *Rec. VI*, 239; *XI*, 376, 380, 659, 660.

eosin reaction with, *Rec. IV*, 97.

examination, *Rec. IV*, 215; *X*, 492.

German laws relating to, *Rec. XI*, 1085.

nutritive value, *Rec. V*, 1101; *VII*, 708; *XII*, 177.

recognition by admixtures of starch, *Rec. VIII*, 742.

refractive index, *Rec. III*, 929.

regulations controlling sale in New Jersey, *Rec. VI*, 81.

testing, *Rec. X*, 118.

Margarodes in the United States, *Rec. VI*, 1003.

Margarodes—

- flegia*, life history, *Rec. XII*, 273.
- trilobitum*, notes, *Rec. VI*, 838.
- vitium*, notes, *Rec. VI*, 832; *VII*, 792, 881; *VIII*, 70, 1001; *IX*, 260; *XI*, 261, 477, 657.

Margaronia—

- hyalinata*. (*See MELON WORM.*)
- nitidalis*. (*See PICKLE WORM.*)

Marguerite fly, notes, *Rec. XI*, 1100.

Marine—

- algæ, absorption of light by, *Rec. VII*, 657.
- nephoscope for navigators, *Rec. V*, 1087.
- plants of the coast of Algeria, *Rec. V*, 923.

Market gardening, *Rec. X*, 151; *XII*, 150.Market gardening— (*See also GARDENING.*)

- fertilizers for, *Rec. VI*, 203.
- in Great Britain, *Rec. VII*, 404.
- irrigation in, *Rec. XI*, 294.
- under glass, *Rec. VII*, 771; *IX*, 139; *XII*, 444.

Marketing farm produce, *Rec. IX*, 899.Markets for American products, *Rec. VII*, 164, 259, 433, 531, 812.

Marl—

- and marling, *Rec. VII*, 584, 969.
- as a fertilizer, *Rec. VII*, 573, 670.
- beds in North Germany, *Rec. VII*, 490.
- burnt, analyses, *Rec. VI*, 274.
- effect on sandy soils, *Rec. XII*, 840.
- Pamunkey, analyses, *Rec. I*, 138.
- phosphate, analyses, *Rec. III*, 145.

Marls—

- analyses, *Bul. 2, 1*, 22, 173, 182; *Rec. I*, 25, 138, 149, 184, 221; *II*, 5, 275, 349, 658, 666, 744; *III*, 299, 357, 515, 590, 792; *IV*, 26, 27, 244, 337, 787; *V*, 217, 290, 538, 562, 621, 861; *VI*, 110, 274, 283, 287, 401; *VII*, 366, 573, 835; *VIII*, 208, 482, 485, 768, 966; *IX*, 543, 636, 935; *X*, 275, 426; *XI*, 137, 314, 719; *XII*, 624, 840, 933.

determination of calcium carbonate, *Rec. XI*, 23.

Michigan, notes, *Rec. VI*, 623.

of North Carolina, location and extent, *Rec. VII*, 103.

Virginia, analyses, *Rec. V*, 165; *X*, 1031.

Marmalade industry in England, *Rec. XII*, 1076.Marmalades, analyses, *Rec. XI*, 769.Marmots, destruction by bacteria, *Rec. X*, 322.

Marram grass—

- as a sand binder, *Rec. IX*, 421.
- notes, *Rec. VI*, 418; *XI*, 423.

Mars—

- and the earth, *Rec. XII*, 1015.
- people of, *Rec. XII*, 1015.

Marsden's new food product, analyses, *Rec. XII*, 281.

Marsh—

- and clay soils as affected by lime, *Rec. IX*, 1043.

fen soils, analyses, *Rec. V*, 346.

cord grass, analyses, *Rec. V*, 64.

culture, *Rec. IX*, 644.

culture—

- experiments in Sweden, *Rec. VI*, 515.
- recent progress, *Rec. XI*, 435.
- Rimpau system, *Rec. IX*, 933.

elder, notes, *Rec. IV*, 669; *VIII*, 703.

grasses—

- analyses, *Rec. II*, 495.
- salt, analyses, *Rec. II*, 487.
- time of cutting, *Rec. II*, 487.
- v. meadow grasses, *Rec. II*, 487.

hay—

- analyses, *Rec. V*, 64.
- chemical composition, *Rec. I*, 90.
- v. straw for steers, *Rec. XI*, 876.

hawk, notes, *Rec. VI*, 694.

lands—

- culture experiments, *Rec. VII*, 190, 938.
- drainage experiments, *Rec. VIII*, 732.
- fertilizer experiments, *Rec. VII*, 491.
- of Kankakee, drainage, *Rec. XI*, 395.
- Schleswig, *Rec. XII*, 427.
- Swedish, culture, *Rec. VIII*, 297.

mud, analyses, *Rec. II*, 481; *III*, 515; *XII*, 531.

plants, buoyancy of seed, *Rec. VII*, 218.

soils, *Rec. X*, 397.

soils—

- analyses, *Rec. X*, 136, 729.
- effect of lime, *Rec. IX*, 1043.

- Marsh—Continued.
 soils—continued.
 effect of sand and lime, *Rec. XII*, 623.
 examination, *Rec. X*, 130.
 fertilizer experiments, *Rec. XII*, 1008.
 nitrate of soda and sulphate of ammonia for, *Rec. XII*, 428.
 of Medoc, France, reclamation, *Rec. VI*, 976.
 Schleswig, *Rec. XII*, 427.
 titmouse, *Rec. IX*, 230.
- Marshes—
 cultivation, *Rec. VIII*, 482.
 drainage, *Rec. XII*, 296, 926.
 of North Sea, cultivation, *Rec. IX*, 821.
 Norway, utilization, *Rec. VIII*, 966.
 peat—
 reclamation, *Rec. VIII*, 298.
 utilization, *Rec. IX*, 34, 236.
 reclamation, *Rec. XII*, 527, 926.
 salt—
 cutting and curing hay of, *Rec. II*, 486.
 extent in Connecticut, *Rec. II*, 486.
 forage plants, *Rec. II*, 486.
 utilization, *Rec. VI*, 24.
- Marsonia*—
ochroleuca—
 attacking chestnuts, *Rec. XI*, 752.
 notes, *Rec. IV*, 50; *X*, 962.
perforans, affecting lettuce, *Rec. XI*, 58.
populi, notes, *Rec. VIII*, 899.
secalis, n. sp., on leaves of rye, *Rec. X*, 155.
viola, notes, *Rec. IV*, 54; *X*, 449.
- Marsupial excrement, analyses, *Rec. XI*, 230.
- Marten, notes, *Rec. II*, 258.
- Martin slag, composition, *Rec. III*, 660.
- Martini's insecticide, *Rec. VII*, 700.
- Martynia, varieties, *Bul. 2, II*, 89.
- Marumba modesta*, notes, *Rec. X*, 164.
- Mayland—
 live stock sanitary boards, *Rec. V*, 1041.
 soils, investigation, *Rec. II*, 466; *V*, 162; *VI*, 880; *XII*, 1098.
- Mary's grass, analyses, *Rec. IV*, 972.
- Maseochara valida*, notes, *Rec. II*, 746.
- Mash—
 of hops, *Rec. V*, 130.
 starch and sugar in, *Rec. V*, 477.
- Masicera frenchii*, notes, *Rec. II*, 116.
- Mason's dietary, *Rec. V*, 595.
- Massachusetts, Horticultural Society of, *Rec. V*, 449.
- Massarimula quercina* on *Quercus pendunculata*, *Rec. VI*, 311.
- Massecoites, *Rec. VII*, 809.
- Massecoites—
 crystallization, *Rec. VI*, 170.
 determination of sucrose in, *Rec. VII*, 741.
 estimation of water, *Rec. V*, 433.
- Mastacinae, new genera, *Rec. IX*, 1069.
- Mastitis. (*See* MAMMITIS.)
- Maté—
 as a food, *Rec. XI*, 1075.
 a food protector, *Rec. XI*, 970.
- Mathematical analysis as applied to terrestrial magnetism, *Rec. VII*, 283.
- Mathematics and meteorology, *Rec. X*, 326.
- Matricaria*—
discoidea, notes, *Rec. III*, 598, 599; *X*, 647.
occidentalis, notes, *Rec. III*, 598.
- Matzoon—
 analyses, *Rec. VI*, 1026.
 for ripening cream, *Rec. IX*, 887.
 studies, *Rec. X*, 493.
- Mauritius—
 Agricultural Station, report, *Rec. IX*, 1098.
 beans, notes, *Rec. X*, 348.
 hemp, notes, *Rec. VI*, 278.
- May beetle. (*See* JUNE BEETLE.)
- Mayberry—
 culture experiments, *Rec. IX*, 50.
 golden, notes, *Rec. X*, 757; *XI*, 150.
 Japanese, notes, *Rec. XI*, 252.
 notes, *Rec. IX*, 354.
- May bug, diseases, *Rec. VI*, 65.
- May bugs, notes, *Rec. VIII*, 1002.
- May flies, collecting and rearing, *Rec. XII*, 870.
- Mayetiola*—
avenae, notes, *Rec. X*, 568.
destructor, notes, *Rec. X*, 568.
- Mayweed—
 notes, *Rec. III*, 308; *IV*, 47; *V*, 398, 529.
 root system, *Rec. IV*, 46.
- Mazzard stocks for cherries, *Rec. II*, 218.
- Meadow brome grass, culture experiments, *Rec. VI*, 531.
- Meadow fescue—
 analyses, *Rec. II*, 200; *III*, 158; *V*, 596; *VI*, 568, 569; *IX*, 786; *XI*, 882; *XII*, 471, 1077.
 as a forage plant, *Rec. III*, 29.
 culture experiments, *Rec. II*, 21, 580, 632; *III*, 158; *IV*, 38; *V*, 38, 171; *VI*, 290, 294, 531; *VIII*, 401.
 for meadows and pastures, *Rec. II*, 238.
 notes, *Bul. 2, I*, 164; *Bul. 2, II*, 84; *Rec. II*, 21, 69, 200, 238, 329, 632, 740; *III*, 29, 158; *V*, 871, 910; *VI*, 97, 215, 294; *VII*, 116, 384; *IX*, 624; *XI*, 332, 436, 539.
 seed, viability, *Rec. XI*, 158.
 tall—
 analyses, *Rec. III*, 357, 375, 398; *VI*, 568; *VII*, 614.
 culture experiments, *Rec. VI*, 296.
- Meadow foxtail—
 analyses, *Rec. V*, 403, 568; *IX*, 268; *XII*, 471.
 as a forage plant, *Rec. III*, 29.
 culture experiments, *Rec. I*, 121; *II*, 633; *IV*, 38; *V*, 38; *VI*, 531.
 germination test, *Rec. VI*, 429.
 new disease, *Rec. VI*, 311.
 notes, *Bul. 2, I*, 164; *Rec. II*, 69, 594, 601, 633, 658; *III*, 29; *V*, 910; *VI*, 97, 311; *VII*, 384.
- Meadow grass—
 and clover, ensiling, *Rec. VI*, 242.
 digestibility, *Rec. III*, 639.
 ensiled r. field-cured, *Rec. III*, 499, 638.
 floating, analyses, *Rec. VI*, 404.
 fowl—
 analyses, *Rec. IV*, 475; *V*, 64, 596; *VI*, 404.
 as a forage plant, *Rec. III*, 29.
 culture experiments, *Rec. I*, 282.
 for permanent meadows, *Rec. III*, 398.
 notes, *Rec. II*, 601; *VII*, 384.
 lime for, *Rec. XI*, 136.

Meadow grass—Continued.

mountain—

analyses, Rec. IV, 769, 770.

feeding value in Sweden, Rec. IV, 771.

notes, Rec. I, 254; V, 870; VII, 116.

reed—

analyses, Rec. VI, 404; VII, 155.

poisoning cattle, Rec. XI, 796.

rough-stalked—

culture experiments, Rec. I, 282; II, 632;

VI, 531; VIII, 401; X, 244.

notes, Rec. II, 601; VI, 97.

viability of seed, Rec. XI, 158.

silage, digestibility, Rec. III, 639.

slender, analyses, Rec. VI, 403.

soft, culture experiments, Rec. X, 244.

tall, culture experiments, Rec. XI, 43.

water, culture experiments, Rec. I, 282.

wood—

analyses, Rec. VI, 404.

as a forage plant, Rec. III, 29, 51.

culture experiments, Rec. I, 282; II, 632;

VI, 531.

notes, Rec. III, 51; VI, 97.

Meadow grasses—

analyses, Bul. 2, I, 43; Rec. II, 589; III, 638;

V, 596.

fertilizer experiments, Rec. III, 754; XI, 340.

of Switzerland, Rec. V, 255.

Meadow hay—

analyses, Rec. V, 410; IX, 786.

digestibility, Rec. X, 1083.

for fattening sheep, Rec. V, 920; X, 1084.

low, analyses, Rec. II, 579.

productive value, Rec. XI, 771.

Meadow katydid, notes, Rec. IV, 839.

Meadow land—

harrowing and manuring, Rec. IV, 782.

improvement, Rec. IV, 39.

management, Rec. V, 172, 652.

permanent effect of manure, Rec. IX, 45.

Meadow lark—

economic relations, Rec. XII, 423.

food habits, Rec. VIII, 751.

notes, Rec. XI, 428.

Meadow oat grass—

analyses, Rec. VIII, 520.

culture experiment, Rec. VI, 294.

fowl, analyses, Rec. IV, 475.

notes, Rec. II, 329, 594.

tall—

analyses, Rec. IV, 646.

as a forage plant, Rec. III, 28, 29, 393, 595.

culture experiments, Rec. IV, 38; VI, 531.

notes, Bul. 2, II, 84; Rec. II, 329, 594; VI, 542; VII, 116, 120, 296, 384.

Meadow plants—

notes and analyses, Rec. V, 437.

of Central Franconia, Rec. X, 725.

Meadow rush, analyses, Rec. VI, 404.

Meadow soft grass—

analyses, Rec. IV, 646.

notes, Rec. III, 85.

Meadow soils, nitrification, Rec. V, 730, 903.

Meadow sweet, notes, Rec. IV, 654.

Meadows—

and fields, alpine, Rec. V, 821.

botanical examination, Rec. V, 253.

care of, Rec. VI, 898.

crops for, Rec. IX, 829.

culture, Rec. VII, 681.

distribution of plants in, Rec. VII, 681.

during the drought of 1892, Rec. VI, 315.

effect of drought, Rec. V, 621.

fertilizer experiments, Rec. VI, 137, 295, 418,

887, 898; VII, 31, 32, 121, 299, 497, 579; VIII,

308, 402, 775; IX, 134; X, 42, 432, 539, 845,

1037; XI, 644; XII, 1038.

hay trash for seeding, Rec. V, 925.

insects affecting, Rec. VIII, 507, 1002; X, 168; XI, 957.

irrigated—

fertilizer experiments, Rec. XI, 138.

manuring, Rec. VIII, 215.

irrigation, Rec. VII, 497; VIII, 480; IX, 1048; XI, 734.

kainit for, Rec. V, 526.

lime supply, Rec. VIII, 537.

management, Rec. II, 237; XI, 927.

manuring, Rec. V, 525; VI, 45, 418; VII, 25, 396, 497, 573, 681; VIII, 215, 307; XI, 842.

methods of—

establishing, Rec. IX, 833.

seeding, Rec. IX, 829.

natural, Rec. X, 1034.

natural—

and artificial, Rec. XI, 319.

influence of manures on, Rec. V, 437.

manuring, Rec. VI, 45.

of Modena, Rec. V, 925.

newly seeded, ashes for, Rec. V, 779.

of Norway, studies, Rec. VII, 681.

Switzerland, Rec. V, 255.

the Modenese Plain, study, Rec. VII, 299.

Saône, Rec. XII, 143.

permanent—

effect of manures, Rec. VII, 573.

grass mixtures for, Rec. XI, 632.

v. recently seeded, Rec. III, 398.

phosphates for, Rec. VII, 25.

phosphatic slag—

and kainit for, Rec. VI, 522.

ground for, Rec. V, 526.

poisonous plants, Rec. X, 361.

potash and phosphoric acid for, Rec. X, 147.

quantitative botanical analysis, Rec. VI, 776.

salt, experiments, Rec. VII, 497, 848.

sewage water for, Rec. VIII, 40.

soil preparation, Rec. IX, 829.

stand of plants, Rec. VII, 764.

Thomas slag and kainit for, Rec. VI, 522.

top-dressing, Bul. 2, I, 104.

wormout, treatment, Rec. VIII, 688.

wood ashes for, Rec. V, 779; VII, 290.

Meal moth, Indian—

notes, Rec. VIII, 610, IX, 65.

remedies, Rec. VIII, 241.

Meal snout moth—

notes, Rec. VII, 515; VIII, 610; IX, 65; X, 273.

remedies, Rec. VIII, 241.

Meal worm beetle, notes, Bul. 2, II, 53.

Meal worm, remedies Rec. VIII, 241.

Meal worms, notes, *Rec. IX*, 65, 670.

Mealy bug—

new—

on potato tubers, *Rec. VI*, 438.
species, *Rec. IX*, 372.

notes, *Rec. VI*, 652; *VII*, 143; *VIII*, 146, 609; *IX*, 670; *X*, 62, 168, 569; *XII*, 1067.

remedies, *Rec. VII*, 229; *XII*, 870.

white-tailed, notes, *Rec. VII*, 228.

Mealy wing—

brown fungus, *Rec. IX*, 695.

brown parasites, *Rec. IX*, 668.

Means grass—

analyses, *Bul. 2*, 1, 181.

digestibility, *Bul. 2*, 1, 181.

Measles—

in cattle, notes, *Rec. IX*, 274.

meat of reindeer, *Rec. XI*, 91.

swine, notes, *Rec. III*, 152.

Measurements and weights showing the development of horses and bulls, *Rec. X*, 83.

Measuring flask, description, *Rec. VIII*, 378.

Measuring worm, notes, *Rec. VIII*, 69.

Meat—

and bone, analyses, *Rec. XI*, 138.

butter, comparative cost of production, *Rec. XII*, 481.

meat products, purchase, *Rec. VIII*, 720.

as food, *Rec. VII*, 803.

boiled, red color, *Rec. XI*, 279.

boiling and steaming, *Rec. V*, 336.

canned—

analysis, *Rec. VIII*, 197.

examination, *Rec. XI*, 67.

canning, *Rec. VII*, 890.

classification and price, *Rec. V*, 258.

cold storage, *Rec. III*, 928.

composition and cooking, *Rec. VII*, 969.

compulsory examination, *Rec. IX*, 982.

consumption of the German Empire, *Rec. VIII*, 1014.

contamination, *Rec. IX*, 174.

cooking experiments, *Rec. X*, 73.

curing, *Rec. IX*, 873.

cuts, determination of source, *Rec. IX*, 1078.

determination of—

fat, *Rec. VII*, 919; *X*, 310, 311, 608; *XI*, 21.

sugar, *Rec. X*, 608.

distribution of nitrogen in, *Rec. VIII*, 619.

dry-pickled, analyses, *Rec. VIII*, 330.

exports from Denmark, *Rec. V*, 657.

extract—

as a food and condiment, *Rec. IX*, 581, 982.

Liebig, *Rec. XII*, 79.

new organic base, *Rec. XII*, 822.

notes, *Rec. XI*, 672; *XII*, 1077.

nutritive value, *Rec. XII*, 1076.

extracts—

composition, *Rec. VII*, 522, 737.

examination, *Rec. VI*, 931.

fat—

content, *Rec. VIII*, 713.

estimation, *Rec. VII*, 919.

free, method of preparation, *Rec. X*, 81.

fresh and refrigerated, *Rec. X*, 571.

frozen, storage experiments, *Rec. V*, 926.

Meat—Continued.

ground—

digestion experiments, *Rec. V*, 1032.

feeding experiments with, *Rec. IV*, 519.

for horses in place of oats, *Rec. V*, 540.

statistics of production, *Rec. VII*, 101.

horse, detection, *Rec. IV*, 694; *V*, 540; *XI*, 21.

importation, *Rec. VIII*, 626.

inspection, *Rec. II*, 33; *V*, 638; *VIII*, 525; *IX*, 274; *X*, 393, 481.

inspection—

Federal, *Rec. VII*, 522.

handbook, *Rec. VIII*, 924; *XII*, 392.

in Bulgaria, *Rec. VIII*, 1014.

Germany, *Rec. XI*, 279.

Norway, *Rec. XI*, 693, *XII*, 892.

Shanghai, *Rec. XI*, 984.

Sweden, *Rec. XI*, 91.

law, *Rec. XII*, 690.

law of the United States, *Rec. XII*, 392.

methods, *Rec. XII*, 392.

juice; analyses, *Rec. X*, 573.

loss in weight by heating, *Rec. V*, 655.

market of Berlin, review, *Rec. V*, 541.

meal—

analyses, *Rec. VI*, 663; *VII*, 336; *VIII*, 719; *X*, 428; *XI*, 279; *XII*, 378, 877.

food value, *Rec. VI*, 752.

for calves, *Rec. VII*, 337; *IX*, 1079.

Ohlendorff's, for pigs, *Rec. XII*, 478.

use, *Rec. X*, 885.

method of analysis, *Rec. III*, 633; *IV*, 783.

nitrogen in, *Rec. VI*, 965.

ox, analyses, *Rec. V*, 540.

peptone—

composition, *Rec. X*, 79, 481.

notes, *Rec. XII*, 1076.

poisonous, *Rec. XII*, 980.

preservation, *Rec. VII*, 63.

preservation with salts, *Rec. XII*, 776.

preserved—

determination of boric acid, *Rec. XI*, 618.

examination, *Rec. VI*, 190.

methods of analysis, *Rec. V*, 127.

products—

boric acid in, *Rec. IX*, 621, 808.

determination of starch in, *Rec. VIII*, 199.

quality of, *Rec. IV*, 316.

raw and cooked, digestibility of albuminoids, *Rec. IV*, 519.

scrap analyses, *Rec. II*, 589; *IV*, 176; *VII*, 294.

scraps, ground, analyses, *Rec. III*, 864; *V*, 194.

skipper, notes, *Rec. V*, 517.

supply of England, *Rec. VI*, 756.

trade—

frozen, of the Colonies and Great Britain, *Rec. VII*, 63.

of Australia, *Rec. VIII*, 626.

transmission of tuberculosis by, *Rec. V*, 1041.

trichinae, *Rec. IX*, 195.

tubercle bacilli in, as affected by smoke, *Rec. X*, 597.

tuberculous, *Rec. X*, 896.

tuberculous—

effect on health, *Rec. VIII*, 719.

investigations, *Rec. VII*, 252, 708, 970;

VIII, 81, 157; *XI*, 691, 694.

variations in price, *Rec. V*, 441.

- Mechanic arts—
 education in, Rec. VIII, 558; IX, 297.
 in the schools of the South, Rec. VIII, 558.
- Mechanical—
 analysis of—
 sand used in sand culture, Rec. V, 758.
 soils, Rec. II, 524, 663; III, 316; IV, 20; V, 924; VII, 753; X, 1027; XII, 257.
 drawing in technical schools, Rec. VI, 486.
 growth of cell membrane, Rec. V, 254.
 strain, influence on plant growth, Rec. VI, 17.
 tissue—
 as affected by bearing, Rec. VIII, 745.
 growth, Rec. VI, 487; VII, 372.
 work in agricultural colleges, Rec. VII, 433.
- Mechanics—
 and equilibrium of kites, Rec. IX, 424, 427, 531.
 of cyclones, Rec. XI, 716.
 plant twining, Rec. VII, 564, 925.
- Mechanism—
 of cell formation, Rec. VII, 188.
 plant respiration, Rec. VI, 388.
 representing the motions of the legs of a moving horse, Rec. IX, 96.
- Meconema varium*, notes, Rec. XII, 974.
- Mecyna reversalis* on lupines, Rec. IV, 667.
- Media—
 crystal formation in, Rec. VIII, 473.
 effect on growth of fungi, Rec. XII, 718.
- Medic—
 black—
 adaptation, Rec. III, 596.
 culture experiments, Rec. VI, 34; X, 244.
 notes, Rec. II, 650; III, 596; V, 77, 809; VI, 34, 294, 808; X, 244.
 root system, Rec. IV, 46.
 bur, notes Rec. VIII, 689; XII, 253.
- Medicago*—
denticulata— (See also CLOVER, BUR.)
 for fodder and green manuring, Rec. X, 348.
 notes, Rec. III, 598, 599; IV, 47; XII, 253.
falcata. (See LUCERN, YELLOW.)
lupulina. (See MEDIC, BLACK.)
maculata— (See also CLOVER, BUR.)
 analyses, Rec. IV, 646.
 for fodder and green manuring, Rec. X, 348.
 notes, Bul. 2, 1, 164; Rec. II, 601; III, 890; IV, 248; V, 161; VII, 296; X, 343.
media. (See LUCERN, SAND.)
orbicularis, a new fodder plant, Rec. V, 925.
sativa. (See ALFALFA.)
sativa turkestanica. (See ALFALFA, TURKESTAN.)
scutellata, a new fodder plant, Rec. V, 925.
turbinata. (See CLOVER, SNAIL.)
- Medicinal—
 plants—
 cultivation, Rec. XII, 954.
 geographical distribution, Rec. VIII, 291.
 of North Carolina, Rec. VI, 278; X, 612.
 sweet wines, examination, Rec. VI, 377.
- Mediterranean—
 climate, influence on common plants of France, Rec. VII, 468.
- Mediterranean—Continued.
 flour moth—
 distribution, Rec. IV, 668.
 notes, Rec. II, 5; III, 359; VII, 515, 595, 596, 789; VIII, 417, 610; IX, 663, 1065; XII, 861.
 remedies, Rec. VIII, 241.
 fruit fly, notes, Rec. XI, 563.
 oranges, insects affecting, Rec. III, 813.
- Medium clover, analyses, Rec. III, 158.
- Medlars—
 disease, new, notes, Rec. XII, 255.
 Japanese. (See LOQUAT.)
 notes, Rec. X, 547.
 rot and gummosis, Rec. X, 59.
 varieties, Rec. V, 190; VIII, 889.
- Megachile centumularis*, notes, Rec. IX, 965.
- Megachile*, a leaf-cutting species, Rec. VIII, 808.
- Megalopyge crispata*, notes, Rec. VIII, 911.
- Megamelus*—
darvizi, notes, Rec. X, 168.
piceus, notes, Rec. V, 792.
- Megarhiza*—
oregona, notes, Rec. IV, 47.
 sp., notes, Rec. III, 598.
- Megascelis texana*, notes, Rec. X, 769.
- Megascops flammeolus idahoensis*, notes, Rec. III, 184.
- Megass—
 analyses, Rec. XII, 39.
 ash, analyses, Rec. XII, 39.
- Megilla*—
maculata—
 notes, Rec. II, 116.
 parasitic on white pine Chermes, Rec. X, 1065.
vittigera, notes, Rec. VI, 741.
- Megorismus lasioptera*, notes, Rec. V, 311, 312.
- Melaleuca leucodendron*, notes, Rec. VI, 427.
- Melampsora*—
acidoides, notes, Rec. XI, 468.
fagi, notes, Rec. VII, 774.
farinosa, notes, Rec. IV, 50.
helioscopiæ, notes, Rec. XI, 468.
larici-capreae, notes, Rec. XI, 468.
populina, notes, Rec. IV, 50, 414; VI, 61; XI, 468.
 sp., notes, Rec. V, 876; IX, 960.
 spp. in Ohio, Rec. IV, 414.
tremula, transformations, Rec. VIII, 108.
- Melampsora* of *Populus tremula*, relationship to *Cœoma fumariæ*, Rec. XI, 59.
- Melampsora*, Japanese, Rec. X, 416.
- Melampsorella caryophyllacearum*, notes, Rec. XI, 948.
- Melanconis stilbostoma*, notes, Rec. XII, 658.
- Melanconium*—
fuliginum—
 artificial cultures, Rec. V, 880.
 notes, Rec. IV, 551; XI, 59, 260.
magnoliæ, notes, Rec. III, 810.
sacchari, notes, Rec. VII, 788.
- Melandrium album*, notes, Rec. V, 911.
- Melanolestes picipes*, notes, Rec. XII, 664.
- Melanophila*—
drummondii, notes, Rec. XII, 64.
fulvaguttata, notes, Rec. XI, 764.

Melanoplus— (See also LOCUSTS.)*angustipennis*, notes, Rec. IV, 760.*atlantis*, notes, Rec. III, 55, 228, 907; IV, 760; V, 64, 1079; VIII, 145, 905; IX, 855; X, 268, 766; XI, 265, 766, 864; XII, 160.*birittatus*, notes, Rec. III, 55, 907; IV, 760; V, 311, 1079; VI, 315; VIII, 145, 905, 998; IX, 855; X, 466, 1069; XI, 265, 952; XII, 160, 265.*derastator*—

dipterous parasite, Rec. IV, 372.

notes, Rec. III, 55, 907; IV, 760.

differentialis—

notes, Rec. III, 55, 907; IV, 57, 760; V, 1079; VI, 315; XI, 265; XII, 265.

on cranberry bogs, Rec. IV, 565.

remedies, Rec. IV, 57.

femoratus, notes, Rec. X, 268.*femor-rubrum*—

notes, Rec. III, 55, 907; IV, 57, 760; V, 64, 311, 1079; VI, 315, 442; VIII, 905; IX, 458, 467, 855; X, 268, 766, 1069; XI, 265.

on cranberry bogs, Rec. IV, 565.

remedies, Rec. IV, 57.

foedus, notes, Rec. IV, 760.*herbaceus*, notes, Rec. IV, 760.*packardii*, notes, Rec. XI, 265; XII, 160.*plumbeus*, notes, Rec. IV, 760.*robustus*, notes, Rec. IV, 760.*spretus*, notes, Rec. III, 55, 222, 228, 907; IV, 760, 839; X, 460; XI, 265, 766; XII, 160.*Melanoplus*, revision, Rec. X, 770.*Melanose*—

false, notes, Rec. XII, 655.

of citrus fruits, notes, Rec. XII, 463.

oranges, Rec. VIII, 318.

Melanotus—*americanus*, notes, Rec. III, 450.*communis*, notes, Rec. II, 734; III, 450, 451; VI, 314; VIII, 143.*exuberans*, notes, Rec. III, 450.*sagittarius*, notes, Rec. III, 450.*scrobicollis*, notes, Rec. III, 450.*Melanoxanthus*—*bicolor*, notes, Rec. II, 673.*flocculosus*, notes, Rec. II, 673.*salicis*, notes, Rec. II, 253.*salicis*, notes, Bul. 2, II, 119; Rec. II, 253, 673; III, 176.*Melasoma scripta*, notes, Rec. VIII, 415.

Melegueta pepper, notes, Rec. V, 915.

Melezitose, hydrolysis by soluble ferments, Rec. VIII, 285.

Melia azederach—

analyses, Rec. X, 678, 972.

rate of growth, Rec. XII, 1048.

Melibiose, studies, Rec. IX, 220.

Melica—*bromioides*, notes, Rec. IV, 951.*bulbosa*, notes, Rec. IV, 951.*diffusa*, notes, Rec. II, 259.*frutescens*, notes, Rec. IV, 951.*fugax*, notes, Rec. IV, 951.*harfordii*, notes, Rec. IV, 951.*pamelii*, n. sp., notes, Rec. XI, 319.*porteri*, notes, Rec. II, 259.*spectabilis*, notes, Rec. II, 321.*stricta*, notes, Rec. IV, 951.*Melicocca bijuga*, notes, Rec. VI, 636.*Meligethes aeneus*, notes, Rec. X, 65; XI, 765.

Melilot, notes, Rec. XI, 339.

Melilotus—*alba*, (See SWEET CLOVER.)*cerulea*, notes, Rec. II, 580, 650.*indica*—

for green manuring, Rec. XII, 1031.

notes, Rec. III, 598.

macrorrhiza, analyses, Rec. X, 72.*officinalis*, notes, Rec. VIII, 867.*parviflora*, notes, Rec. VIII, 234.*Melilotus*—

for green manuring, Rec. II, 10, 473; III, 590, notes, Rec. X, 547.

Meliola—*fumerea*, notes, Rec. VIII, 671.*penzigi*, notes, Rec. IX, 658; XII, 857.

sp., notes, Rec. VII, 838; XII, 644.

Melissa for bees, Rec. II, 279, 496.

Melissodes menuacha submenuacha, notes, Rec. IX, 372.*Melissopus latiferreana*, notes, Rec. VI, 440.*Melitaria prodenialis*, notes, Rec. VI, 742.

Melitriose and its quantitative determination, Rec. VI, 503.

Melittia—*ceto*—

notes, Rec. III, 390; IV, 56, 666; VI, 833, treatment, Rec. V, 405.

cucurbita, notes, Rec. III, 327.*satyriniformis*. (See SQUASH BORER.)*Meloe proscarabeus*, notes, Rec. IX, 776.*Melogramma heuriquetii*, n. sp., description, Rec. XII, 767.*Melolontha*—*hippocastani*, notes, Rec. XII, 467.*vulgaris*, notes, Rec. V, 822; VI, 65; VII, 968; VIII, 507, 610, 909, 1002; X, 763; XI, 273, 370, 562, 637, 762; XII, 862.*Melon*—

beetle, striped, notes, Rec. IV, 354.

blight, treatment, Rec. II, 32; IV, 55.

borer, notes, Rec. XII, 1058.

caterpillar, notes, Rec. XI, 364.

disease, new, Rec. VI, 557; VIII, 411.

diseases, treatment, Rec. V, 997.

downy mildew, notes, Rec. XII, 566.

leaf blight, notes, Rec. IX, 568; X, 362.

louse—

notes, Bul. 2, I, 176; Rec. II, 281; III, 309; V, 63, 685; VI, 312, 650, 652, 833, 1002, 1005; IX, 370; X, 66; XI, 370, 864, 952.

remedies, Rec. IV, 58; V, 405; VIII, 613, 904, 905; IX, 68, 469, 664.

rust, treatment, Rec. I, 168.

tree, distribution, Rec. III, 597.

vine midge, Rec. IX, 772.

vine midge, hairy, Rec. IX, 772.

wild, notes, Rec. VII, 690.

wilt, treatment, Rec. XI, 754.

worm, notes, Rec. I, 27; VIII, 1002; XI, 364, 864, 952.

Melons—*Alternaria nigrescens* and *Tetranychus tiliaris* on, Rec. V, 731.

analysis of juices, Rec. VI, 110.

Melons—Continued.

- citron, notes, Rec. V, 577.
- culture, Rec. X, 350.
- culture experiments, Rec. VII, 121.
- fertilizer experiments, Bul. 2, I, 21.
- growing for market, Rec. IX, 649.
- hothouse cultivation, Rec. VI, 727.
- insects affecting, Rec. VIII, 147.
- Kansas stock, Rec. VII, 121.
- new, Rec. IX, 840.
- new fungus disease, Rec. VIII, 141.
- notes, Rec. XI, 239.
- nutmeg, analyses, Rec. IV, 59.
- pawpaw, notes, Rec. VI, 636.
- pie, analysis, Rec. XII, 378.
- Russian, varieties, Rec. XI, 851.
- Scolecotrichum melophthorum* on, Rec. X, 155.
- spraying experiments, Rec. XI, 270.
- stock. (See STOCK MELONS.)
- sugar, analyses, Rec. VIII, 597.
- varieties, Bul. 2, I, 23; Rec. IV, 145; V, 870, 871, 873; IX, 244; X, 350; XI, 51, 851.
- Melophagus orinus*, notes, Rec. II, 79; III, 46; IX, 994; XI, 263; XII, 1067.
- Melting point, determination, Rec. XII, 309.
- Melting points, apparatus for determining, Rec. VII, 921.
- Membracidae, North American, Rec. IV, 667, 856; V, 741.
- Membrane—
 - cell—
 - dissolution during germination, Rec. VII, 18.
 - mechanical growth, Rec. V, 254.
 - thickening in epidermis of roots, Rec. V, 539.
 - infolded, as related to turgescence swelling, Rec. V, 253.
 - precipitate, permeability, Rec. V, 649.
 - structure in vascular tissues, Rec. IX, 329.
- Membranes—
 - cellular, formation, Rec. IX, 922.
 - fungus—
 - constituents, Rec. VI, 279; IX, 921.
 - structure, Rec. V, 729.
 - plant, studies, Rec. V, 922.
 - vegetable cell—
 - carbohydrates in, Rec. V, 817.
 - chemical composition, Rec. V, 434.
- Memorial to Prof. William Ferrel, Rec. X, 1018.
- Mendoncia, anatomy, Rec. V, 127.
- Menhaden fish manure, Rec. VI, 400.
- Meningitis—
 - bovine, Rec. XI, 193.
 - cerebro-spinal—
 - in horses, Rec. V, 603; VI, 843; VIII, 524; X, 394, 896; XI, 697; XII, 290.
 - notes, Rec. V, 795; XII, 684.
- Menispermum canadense*, notes, Rec. III, 521; IV, 656.
- Menopon—
 - expensum*, notes, Rec. IX, 254.
 - fusco-marginatus*, notes, Rec. IX, 254.
 - interruptus*, notes, Rec. IX, 254.
 - pallidum*, Rec. XI, 263.
- Mental economy, studies, Rec. XII, 676.
- Mentha pulegium*, notes, Rec. XI, 858.
- Menthol vapor, germicidal power, Rec. VIII, 523.

Mentzelia reflexa, notes, Rec. VI, 114.

Mephitis—

- avia*, notes, Rec. IX, 1030.
- mephitica*, notes, Rec. VIII, 998; X, 25.
- spissigrada*, notes, Rec. IX, 1030.

Meraporus—

- bruchivorus*, notes, Rec. V, 311.
- sp., as a parasite of the gypsy moth, Rec. III, 870.

Merchandise—

- Cuban, statistics, Rec. IX, 397.
- exports, Rec. V, 798.

Mercurialis perennis, notes, Rec. V, 970.

Mercuric chlorid. (See CORROSIVE SUBLIMATE.)

Mercuric oxid in elementary analysis, Rec. V, 433.

Mercuric oxids as affected by nitrogen, Rec. VII, 364.

Mercury—

- apparatus for measuring, Rec. VII, 18.
- bichlorid, stability of aqueous solutions, Rec. VI, 190.
- in grape products, Rec. XII, 858.
- grapes and wines, determination, Rec. X, 1005.
- pump, new, Rec. XI, 214.
- salts, effect on yeast, Rec. VI, 507.
- thermometer, invention, Rec. VI, 976.
- three-seeded, root system, Rec. IV, 46.
- vent for distilling flasks, Rec. XI, 419.

Meredon—

- equestris*, notes, Rec. VIII, 1001.
- narcissi*, notes, Rec. VIII, 507.

Meria laticis, notes, Rec. VII, 835.

Meridian lines, establishment, Rec. XII, 221.

Merismopadia elegans on greenhouse plants, Rec. XI, 906.

Meristem, two new stains, Rec. V, 1028.

Mermis sp., notes, Bul. 2, II, 93.

Meromyza americana. (See WHEAT STEM MAGGOT.)

Merops—

- apiaster*, notes, Rec. XII, 830.
- persicus*, notes, Rec. XII, 830.

Merulius lacrymans—

- dry rot of wood due to, Rec. V, 821.
- injuring woodwork, Rec. VIII, 500.
- notes, Rec. X, 155; XI, 947.

Mesa soil, analyses, Rec. III, 846.

Mesembryanthemum, rôle of starch in, Rec. VII, 277.

Mesochorus—

- melleus* on *Cimex americana*, Rec. IV, 171.
- pulchellus*, notes, Rec. II, 730.
- sp., notes, Rec. VI, 235.

Mespilus germanica, analyses, Rec. VIII, 55.

Mesquite—

bean—

- analyses, Bul. 2, I, 188; Rec. VIII, 331.
- feeding value, Bul. 2, I, 188.
- notes, Rec. X, 343.

beans and leaves, analyses, Rec. VII, 133.

grass—

- curly, notes, Rec. X, 147, 343.
- notes, Rec. II, 69; VIII, 780.

notes, Rec. VIII, 306.

Pods, analyses, Rec. XI, 458.

poisoning by, Rec. IX, 1091.

scale, cottony, n. gen. and n. sp., Rec. IV, 418.

tree, products and uses, Rec. VII, 132.

Metabolic—

changes in sprouting potato tubers, *Rec. IV*, 858, 871.

products—

determination, *Rec. IV*, 70.

in dung, investigations, *Rec. II*, 267.

Metabolism—

and digestibility of albuminoids as affected by salt, *Rec. V*, 259, 531.

nutrition of Italian peasants, *Rec. V*, 1031.

power to perform work, effect of food on, *Rec. XII*, 171.

respiration of germinating plants, *Rec. VI*, 276.

structure of halophytes, *Rec. X*, 321.

animal—

as affected by the addition of fat and starch to food, *Rec. VII*, 336; *VIII*, 321, 616.

influenced by light, *Rec. VII*, 795.

fat in, *Rec. VII*, 336; *VIII*, 321, 616.

investigations, *Rec. VII*, 815.

as affected by—

alcohol, *Rec. XI*, 184.

exercise, *Rec. X*, 182, 183.

fasting in hypnotic sleep, *Rec. IX*, 480.

feeding thyroid gland, *Rec. IX*, 982.

kind and amount of food, *Rec. XII*, 171.

massage, *Rec. X*, 182.

muscular work, *Rec. XI*, 1067.

omitting water from diet, *Rec. XII*, 177.

spaying, *Rec. VIII*, 157.

sweating, *Rec. X*, 182.

experiments—

digest, *Rec. IX*, 1073; *X*, 780.

elastin, value in, *Rec. XI*, 672.

in relation to nutrition of man and domestic animals, *Rec. IX*, 1001.

with children, *Rec. XII*, 981.

dogs. (*See DOGS, METABOLISM.*)

horses, *Rec. VIII*, 156; *X*, 76, 496, 1083; *XI*, 72.

man, *Rec. VIII*, 242, 821; *IX*, 275, 480, 786, 863; *X*, 173; *XI*, 67, 184, 374, 376, 380, 672, 770, 778, 960, 1067; *XII*, 79.

sheep, *Rec. VII*, 235, 804; *IX*, 171, 1079; *X*, 1083; *XI*, 772.

steers, *Rec. IX*, 167; *X*, 669, 1081; *XI*, 770; *XII*, 1071.

function of—

citric acid, *Rec. V*, 127.

water, *Rec. XI*, 184.

methods of study, *Rec. XII*, 379.of albuminoids in animals, *Rec. IV*, 986, 987.

calves, *Rec. IX*, 101.

calves, experiments, *Rec. IX*, 170.

cherry trees, *Rec. IX*, 524.

children, *Rec. IX*, 175; *XII*, 981.

of dogs—

as affected by muscular work, *Rec. IX*, 680.

edestin in, *Rec. XI*, 728.

fed fractionally, *Rec. IV*, 987; *VI*, 77.

of energy, *Rec. XI*, 374.

energy as related to feeding standards, *Rec. X*, 1089.

horses, *Rec. V*, 822; *XII*, 781.

Metabolism—Continued.

of lime, *Rec. VI*, 77.

of man—

as influenced by mineral waters, *Rec. VIII*, 521.

experiments, *Rec. VIII*, 242, 821; *IX*, 275, 480, 786, 863; *X*, 173; *XI*, 67, 184, 374, 376, 380, 672, 770, 778, 960, 1067; *XII*, 79.

matter and energy, value of experiments, *Rec. IX*, 1003.

nitrogen. (*See NITROGEN METABOLISM.*)

nutrients in the animal body, *Rec. IV*, 986; *VII*, 538, 815.

oxen, as affected by food, *Rec. V*, 1032.

pigs, *Rec. XI*, 672.

plants, as related to tannic acid, *Rec. V*, 649; *VI*, 195.

proteins in plants, *Rec. XII*, 1012.

of protein—

as affected by alcohol, *Rec. VII*, 708.

affected by borax and boric acid, *Rec. IX*, 782.

influenced by muscular work, *Rec. VIII*, 149.

in plants, *Rec. XI*, 321.

when antipeptone is consumed, *Rec. VIII*, 331.

of sheep—

as affected by asparagin and ammonia, *Rec. XII*, 874.

methods of studying, *Rec. XI*, 773, 778.

pathology, *Rec. VIII*, 332.

physiology, *Rec. VIII*, 821.

with insufficient diet, *Rec. XI*, 381.

Metachroma viticola, notes, *Rec. X*, 769.

Metal—

tie plates, use, *Rec. VII*, 164.

ties for railways, *Rec. XI*, 1050.

Metals—

alkalimetric determination, *Rec. VIII*, 667.

as affected by oxid of nitrogen, *Rec. VII*, 364.

effect on—

bacteria, *Rec. VII*, 280.

bouillon cultures of bacteria, *Rec. XI*, 123.

in artesian water, *Rec. IX*, 323.

liquids, determination, *Rec. VII*, 557.

plants, *Rec. X*, 613.

Metamorphic gypsums of Algeria, *Rec. VII*, 853.

Metamorphosis in Lotany, *Rec. VI*, 786.

Metaphosphate, studies, *Rec. XII*, 308.

Metaphosphoric acid, *Rec. IX*, 323.

Metaphosphoric acid—

and pyrophosphoric acid, separation, *Rec. IV*, 387.

fertilizing action, *Rec. VII*, 293.

in cotton-seed meal, *Rec. IV*, 901.

superphosphates, determination, *Rec. VII*, 88; *X*, 19.

Metapodius femoratus, notes, *Rec. II*, 116.

Metasia sp., notes, *Rec. V*, 900.

Metasphaeria nigromaculans, notes, *Rec. X*, 725.

Metcalfe bean, culture, *Rec. X*, 542, *XII*, 332.

Meteor—

bright, *Rec. IX*, 424.

noise made by, *Rec. VII*, 474.

Meteoric—

story, sensational, *Rec. X*, 419.

waters, nitrogen compounds in, *Rec. V*, 522.

Meteorological—

- almanac and weather guide, Rec. XII, 1017.
- and crop-reporting stations, Rec. X, 325.
- irrigation engineer, report, Rec. IV, 870.
- magnetic observations and computations, Rec. IX, 424, 426.
- physical researches in France, Rec. X, 103, 203.
- apparatus, Rec. V, 280.
- cablegrams, Rec. XII, 521, 1015.
- century, Rec. XII, 25.
- chart of the Great Lakes, Rec. XI, 621, 912.
- Committee, International, proceedings, Rec. XI, 222, 621; XII, 1015.
- conditions—
 - affecting crops in 1892, Rec. IV, 578.
 - as affecting vegetation, Rec. VI, 618.
 - of 1894, Rec. VI, 755.
- Conference, International, Rec. VIII, 675.
- Congress—
 - at Paris, Rec. XI, 1000; XII, 118.
 - International, 1893, Rec. V, 1086; VII, 285; VIII, 755.
 - National, of Mexico, Rec. XII, 1016.
 - of Clermont-Ferrand, Rec. VIII, 476, 676.
- extremes at Northfield, Ma s., Rec. X, 325.
- Institution, Royal Prussian, semicentennial, Rec. IX, 814.
- instruments, Rec. V, 857.
- instruments, notes, Rec. XII, 1018.
- journal, new, Rec. XII, 520, 521.
- library, Rec. XII, 521.
- museum at Brooklyn, Rec. XII, 521.
- normals, calculation, Rec. VII, 845.
- notes, from Porto Rico, Rec. XII, 831.
- observations, Rec. XII, 521, 831, 1015.
- observations— (*See also* CLIMATE, RAIN, WEATHER, etc.)
 - at Aigoual and Montpellier, Rec. XII, 121.
 - Cawnpore, Rec. XII, 921.
 - Gembloux, Rec. V, 556.
 - Lausanne, Rec. XII, 121.
 - Leon, Rec. XII, 316.
 - Mont Blanc, Rec. VII, 22.
 - Münster, Rec. VIII, 476.
 - St. Helier, Rec. VII, 96.
 - University of Odessa, Rec. X, 328.
- during a fire, Rec. XII, 831.
- in Alabama, Bul. 2, I, 23; Rec. I, 5, 7; II, 193, 270, 315, 474, 547, 549, 710.
- Alaska, Rec. VII, 474; IX, 804; X, 1018; XII, 630, 831.
- Argentina, Rec. VI, 975.
- Arizona, Rec. VIII, 753; X, 124.
- Arkansas, Rec. VI, 21, 196, 391, 789, 878; VII, 97; VIII, 382; IX, 630, 928; XII, 137.
- Austria, Rec. X, 617.
- Bombay, Rec. VI, 975.
- Brazil, Rec. XI, 716.
- British Guiana, Rec. IX, 231.
- California, Rec. VI, 788; VIII, 674, 675; X, 224; XII, 921, 945.
- Canada, Rec. III, 127, 128; VII, 565; VIII, 870; IX, 731, 816, 832; X, 826; XI, 621, 820; XII, 28, 316, 521.
- Central Asia, Rec. X, 930.

Meteorological—Continued.

- observations—continued.
 - in Colorado, Bul. 2, I, 33; Rec. II, 393, 395; III, 84, 85; IV, 334; V, 898; IX, 1095; X, 1018; XI, 323; XII, 220.
- Connecticut, Rec. II, 397; III, 286; IV, 16; V, 565; VI, 390; VII, 564; VIII, 381; IX, 729; X, 616; XI, 819; XII, 1016.
- Death Valley, California, Rec. IV, 198.
- Delaware, Rec. II, 324; III, 688, 690; V, 566, 775; VI, 788; VIII, 476; IX, 424; XI, 430; XII, 724.
- Denmark, Rec. VII, 932; IX, 31; X, 26, 522.
- England, Rec. IX, 533; XI, 820, 1018.
- England and Wales, Rec. XI, 1018.
- France, Rec. VI, 876; VII, 844; VIII, 675; IX, 1032, 1034; X, 1018; XI, 31, 128, 821; XII, 521, 918, 921.
- Georgia, Rec. II, 50; XI, 30, 1018.
- Idaho, Rec. V, 898; X, 617; XII, 316.
- Illinois, Rec. VI, 391; VII, 932.
- India, Rec. VI, 879.
- Iowa, Rec. IV, 414; V, 736; VI, 391; VII, 473, 475, 565.
- Island of Mauritius, Rec. VIII, 676; IX, 533; X, 617; XII, 619.
- Italy, 1890, Rec. VI, 880; VII, 21; VIII, 676.
- Java, Rec. XI, 911.
- Jersey, Rec. VII, 844.
- Kansas, Rec. VI, 281.
- Kentucky, Rec. VII, 842; VIII, 381; IX, 1034; XI, 323; XII, 521.
- Klondike, Rec. X, 325, 326.
- Louisiana, Rec. II, 569; III, 861; IV, 709; VI, 512; VII, 372; XII, 440, 834.
- Maine, Rec. III, 396; IV, 119; V, 29; IX, 816; X, 826; XI, 912.
- Manchuria, Rec. IX, 231.
- Maryland, Rec. III, 517; IV, 16; VII, 96; VIII, 382, 964; XI, 820; XII, 834.
- Massachusetts, Rec. II, 25, 56, 231, 236, 278, 353, 410, 492, 582, 654, 730; III, 24, 86, 162, 165, 228, 287, 397, 520, 609, 700, 704; IV, 16, 119, 242, 335, 405, 463, 545, 709; V, 30, 162, 280, 482, 483, 676; VI, 117, 196, 282, 391, 513, 621, 700, 976; VII, 98, 189, 285, 287, 475, 843, 932; VIII, 110, 207, 293, 962, 964; IX, 332, 729; X, 26, 328, 419, 317, 826; XI, 128, 222, 432, 715, 1018; XII, 28, 220, 316, 619, 918.
- Mexico, Rec. VI, 621, 880; XII, 425.
- Michigan, Rec. II, 495; IV, 405; V, 677; VII, 473, 932; VIII, 870; X, 124; XI, 30, 1018; XII, 121.
- Minnesota, Rec. II, 239; VIII, 207, 476; IX, 426; XI, 323; XII, 425, 1017.
- Mississippi, Bul. 2, I, 109; Rec. II, 412, 658; III, 877; VI, 789; XI, 821; XII, 220.
- Missouri, Rec. II, 586; III, 445.
- Nebraska, Bul. 2, I, 111; Rec. II, 240; III, 29, 799; IV, 803; VI, 117, 976; VII, 843; VIII, 964; IX, 730.
- Nevada, Rec. III, 447.

Meteorological—Continued.

observations—continued.

in New England, Rec. VI, 879.

New Hampshire, Rec. V, 30; VII, 352; X, 419; XI, 128; XII, 120.

New Mexico, Rec. V, 857.

New South Wales, Rec. IX, 31; XI, 517; XII, 725.

New York, Bul. 2, I, 165; Rec. III, 405; IV, 242; VI, 21, 976; VIII, 567; X, 225, 1020; XI, 430; XII, 28, 618, 921.

North Africa, Rec. XI, 821.

North Carolina, Bul. 2, I, 174; Rec. II, 288, 423, 510, 602, 660; III, 92, 172, 241, 411, 712, 803; IV, 16, 119, 243, 709, 803; V, 281, 282, 483, 677, 857, 1070, 1085; VI, 21, 117, 282, 390, 391, 621, 702, 879, 976; VII, 98, 165, 285, 287, 475, 845; VIII, 31, 34, 208, 293, 937.

North Dakota, Rec. V, 162; VI, 513; IX, 731; X, 315; XI, 821; XII, 220.

Northwest Territories, Rec. XII, 425.

Norway, Rec. IX, 731; XII, 221.

Ohio, Bul. 2, II, 119; Rec. III, 176, 804; IV, 901; VI, 116; VII, 660; VIII, 293, 262; X, 1019; XII, 120, 831, 919.

Oklahoma, Rec. VIII, 963; X, 26.

Oregon, Rec. III, 412.

Pennsylvania, Rec. III, 464, 720; V, 30; VI, 115, 701; VII, 932; VIII, 754; IX, 815; XII, 618.

Peru, Rec. VII, 660.

Porto Rico, Rec. VI, 878; X, 419.

Rhode Island, Rec. II, 295; III, 315; IV, 244; V, 776; VII, 373, 844; VIII, 567; IX, 927; X, 930; XI, 911; XII, 724, 919.

Russia, Rec. VI, 880; XI, 222; XII, 916.

Scotland, Rec. VIII, 111; IX, 122, 332; X, 617, 930; XI, 222, 517.

South Carolina, Rec. III, 316.

South Dakota, Rec. IV, 243; VI, 513; VIII, 293.

Sweden, Rec. VI, 877, 880; IX, 31.

Texas, Bul. 2, I, 189; Rec. II, 514, 742; III, 724; IV, 950; IX, 332; X, 1020.

Trinidad, Rec. VII, 97.

United States, Rec. V, 219; VI, 280; VIII, 961; IX, 29; XI, 29; XII, 25, 118.

Utah, Rec. III, 625; V, 32; VI, 512; VIII, 963; XI, 432.

Virginia, Rec. VIII, 208; IX, 731, 1034; XI, 128; XII, 121, 1017.

West Virginia, Rec. II, 517, 744; IX, 816, 927.

Wisconsin, Bul. 2, I, 215; Rec. XII, 40.

Württemberg, Rec. VI, 879.

Wyoming, Rec. III, 52, 630; IV, 709; V, 325, 692; VI, 18, 943; VII, 286; VIII, 32, 293, 964, 1034; XI, 1017; XII, 1016.

index, Rec. III, 330.

old French, Rec. VI, 976.

on Atlantic Ocean, Rec. IX, 1034.

Mount Washington, Rec. III, 549.

permanent record, Rec. XI, 127.

observatory—

at Manila, Rec. XII, 522.

in Italy, Rec. IV, 240.

Meteorological—Continued.

observers—

Arctic and Antarctic, Rec. XII, 1016.

in India, instructions, Rec. VI, 880.

voluntary instructions for, Rec. III, 817.

office, London, Rec. XII, 119.

reports by cable from Iceland, Rec. XI, 222.

service of—

Canada, Rec. XI, 222, 430.

southwest Russia, Rec. X, 328.

Society, German, meeting, Rec. X, 325.

Society, Royal, Rec. X, 1018.

station—

highest, Rec. X, 325.

on Mount Tamalpais, report, Rec. IX, 531.

stations—

and publications, Rec. V, 1086.

apparatus for, Rec. V, 819.

as stations of instruction, Rec. XI, 127.

establishment and inspection, Rec. XI, 127.

notes, Rec. XII, 1016.

of Harvard University, Rec. IX, 815.

Wyoming, Rec. XII, 118.

voluntary, Rec. XI, 127.

statistics, improvement, Rec. XI, 127.

superstitions, Rec. X, 325.

symbols, international, Rec. X, 419.

terms, objectionable, Rec. XII, 119.

use of the term "local," Rec. IX, 424.

waves, Rec. XI, 30.

work—

at agricultural colleges, Rec. III, 585.

for agricultural institutions, Rec. III, 585, 631.

in Alaska, Rec. X, 325.

Meteorology— (*See also* CLIMATE, RAIN, WEATHER, etc.)

agricultural, Rec. VII, 287; XI, 127; XII, 122.

agricultural—

importance, Rec. X, 225.

notes, Rec. XI, 127; XII, 122.

principles, Rec. VII, 287.

treatise, Rec. XI, 129.

aims and methods, Rec. XII, 119.

and agriculture in the Department of Hé-
rault, Rec. XI, 599.

crops in Mauritius, Rec. IX, 531.

geodesy, Rec. XII, 1015.

magnetism, Rec. VII, 845.

ocean temperatures, Rec. X, 419.

physics in universities, Rec. XI, 430.

public health, Rec. VII, 474.

seismology, Rec. XII, 920.

the farmer, Rec. VII, 474.

universities, Rec. XI, 429.

as a college course, Rec. XII, 1015.

a university course, Rec. VII, 474.

as related to growth of—

corn, Bul. 2, II, 136.

sugar cane, Rec. II, 150, 569.

at Johns Hopkins University, Rec. X, 419.

Riga and Dunamunde in 1891, Rec. IV, 448.

the Paris Congress, Rec. XII, 1015.

the Paris Exposition, Rec. XII, 119.

bibliography, Rec. XI, 221.

by correspondence, Rec. X, 326.

Meteorology—Continued.

- by laboratory methods, Rec. XI, 819.
 - cycles in, Rec. IX, 30, 815.
 - elementary, Rec. VI, 196; XI, 429.
 - elementary treatise, Rec. X, 1020.
 - forest observations, Rec. V, 95.
 - high-level stations in Jamaica, Rec. IX, 531.
 - historical events, Rec. XII, 118.
 - importance to farmers, Rec. XI, 222.
 - in Australia, Rec. VI, 974.
 - Brazil, Rec. III, 362.
 - Costa Rica, Rec. XII, 1015.
 - Delaware, progress, Rec. XII, 119.
 - Great Britain, Rec. XI, 222.
 - Iowa, Rec. XI, 221.
 - Maryland, progress, Rec. XII, 119.
 - relation to the crops of 1891, Rec. III, 543.
 - Russia, Rec. XI, 222.
 - schools, Rec. VIII, 111; IX, 30; XI, 127, 819.
 - U. S. Geological Survey, Rec. IX, 815.
 - universities, Rec. XI, 621, 819; XII, 521.
 - instrumental, historical sketch, Rec. VIII, 755.
 - lectures, Rec. XII, 521.
 - list of popular works, Rec. VII, 474.
 - mathematics in, Rec. XII, 1015.
 - Mexican, bibliography, Rec. VI, 702.
 - needs of, Rec. VI, 874.
 - new elementary, Rec. X, 1018.
 - obscure points, Rec. XI, 222.
 - of Ben Nevis, note, Rec. XII, 27.
 - fifteenth, sixteenth, and seventeenth centuries, Rec. VI, 511.
 - Italian mountains, Rec. VIII, 755.
 - Lower California, Rec. XII, 921.
 - Maryland, Rec. XII, 119.
 - Ordovician, Rec. XII, 921.
 - second Wellman expedition, Rec. X, 325.
 - South Africa, Rec. XII, 118.
 - periodicity, Rec. VII, 282; XII, 1015.
 - practical and applied, Rec. VI, 512.
 - present status, Rec. XI, 620.
 - publications, recent, Rec. VIII, 207.
 - relation to—
 - agriculture in Idaho, Rec. V, 857.
 - forestry, Rec. X, 1020.
 - solar and terrestrial magnetism, Rec. X, 26.
 - searchlight in, Rec. IX, 424.
 - use of kites in, Rec. VIII, 476, 676.
 - v. climatology, Rec. X, 418.
 - Weather Bureau men as instructors, Rec. XII, 1015.
 - work of U. S. Weather Bureau, Rec. XII, 424.
- Meteors—
- bright, Rec. X, 124, 419.
 - recent, Rec. X, 1018.
- Meteorus—
- bakeri*, notes, Rec. II, 730.
 - communis*, notes, Rec. II, 730.
 - hyphantriae*, notes, Rec. II, 116.
 - scutellator*, notes, Rec. XII, 865.
 - spp., notes, Rec. IV, 852.
 - vulgaris*, notes, Rec. XII, 363.
- Meter and yard, value, Rec. IX, 30.
- Methose, effect on glycogen formation, Rec. XII, 981.

Methyl—

- alcohol—
 - detection in mixtures, Rec. XII, 612.
 - occurrence in plants, Rec. XI, 121.
 - cinnamate in *Alpinia malaccensis*, Rec. XI, 121.
 - glycosid, effect on glycogen formation, Rec. XII, 981.
 - orange as an indicator, Rec. VIII, 860.
 - salicylate, occurrence in plants, Rec. XI, 121.
 - salicylic ether in plants, Rec. VI, 389.
- Methylen blue, reaction with butter and margarin, Rec. IV, 97.
- Methylen-glucose, Rec. XI, 706.
- Metura elongata*, notes, Rec. XI, 658.
- Metzneria lappella*, notes, Rec. XII, 166, 265.
- Mexican—
- beans, notes, Rec. V, 1074.
 - bees, new species, Rec. VIII, 711.
 - climatological data, Rec. VIII, 207, 475, 675, 676.
 - clover, notes, Rec. II, 658; IV, 248.
 - cotton-boll weevil. (*See* COTTON-BOLL WEEVIL.)
 - fruit fly, notes, Rec. V, 409.
- Miasma weed, eradication, Rec. IX, 142.
- Miathyria flavescens*, notes, Rec. IX, 370.
- Mice—
- as enemies of the Archippus butterfly, Rec. IV, 852.
 - destruction by—
 - bacteria, Rec. V, 1104; VII, 842, 929; VIII, 473.
 - mouse typhus bacillus, Rec. XI, 1087.
 - strychnin, Rec. XII, 617.
 - field, destruction, Rec. V, 345, 730, 1104.
 - injuring—
 - orchards, Rec. VI, 990.
 - trees, remedies, Bul. 2, I, 93.
 - injurious, remedies, Rec. XI, 372.
 - injury to crops, Rec. X, 323.
 - jumping, studies, Rec. XI, 429.
 - meadow, notes, Rec. XII, 422.
 - pocket, Rec. XII, 617.
 - white, transmission and evolution of tumors on, Rec. V, 349.
- Micracis, biological notes, Rec. III, 812.
- Micrathyria*—
- basalis*, notes, Rec. IX, 370.
 - eximia*, notes, Rec. IX, 370.
 - tibialis*, notes, Rec. IX, 370.
 - venusta*, notes, Rec. IX, 370.
- Microbe in silkworm, Rec. IX, 159.
- Microbes—
- and organic matter in the soil, Rec. V, 730.
 - their rôle in the dairy, Rec. V, 1033, 1101.
 - as affected by bromalbumin, Rec. IX, 627.
 - factors in society, Rec. VI, 969.
 - assimilation of nitrogen, Rec. V, 923, 1010; VII, 465.
 - effect on development of tubercle bacillus, Rec. XI, 394.
 - in air and water of Paris, Rec. IX, 94.
 - cream and cheese, Rec. IV, 873.
 - health and disease, Rec. VII, 279.
 - production of ammonia in the soil by, Rec. V, 614.
 - rôle of, Rec. VI, 18.

- Microbic—
 invasions, study, Rec. VII, 156.
 solutions as affected by mineral filters, Rec. IV, 314.
- Microbicide action of carbonic acid in milk, Rec. IV, 519.
- Microbiology, variability and transformation, Rec. VII, 20.
- Microcentrus retinervis*, notes, Rec. III, 309.
- Microcera* sp., for combating San José scale, Rec. XI, 654.
- Micro-chemical—
 analysis, Rec. XI, 509, 812.
 investigation, Rec. VIII, 471.
- Micrococcus*—
amylovorus, notes, Rec. II, 319; III, 445; V, 194, 1019; X, 648, 865.
aurantiacus sorghi, notes, Rec. X, 562.
butyri-aromafaciens for ripening cream, Rec. XI, 490.
cruciformis, n. sp., Rec. XI, 713.
delacourianus, notes, Rec. VIII, 994.
ghadiallii, notes, Rec. IX, 694.
insectorum—
 as a disease of chinch bugs, Rec. III, 835; VI, 150.
 notes, Rec. III, 657.
lactis varians, occurrence in milk, Rec. XII, 1083.
lardarius, notes, Rec. VIII, 909.
prodigosus, coloring matter, Rec. IV, 222.
 spp., notes, Rec. XI, 468.
tetragenus, ptomaine from culture of, Rec. IV, 315.
uberis, notes, Rec. IX, 1088.
- Micrococcus*—
 chromogenic, new, Rec. IX, 1030.
 of bitter milk, Rec. III, 384.
- Microdus laticinctus*, notes, Rec. IV, 417.
- Microfungi, studies, Rec. VII, 658.
- Microgaster militaris*, parasitic on army worm, Rec. IX, 663.
- Microlepidoptera—
 mounting, Rec. IX, 468.
 new, Rec. X, 872.
 oral apparatus, Rec. IX, 573.
- Micromycetes, new species, notes, Rec. VIII, 380; IX, 227.
- Micro-organisms—
 anaerobic, culture tube, Rec. VII, 660.
 and bacterial poisons in brain and spinal cord, Rec. X, 497.
 as affected by—
 ammonium salts, Rec. VIII, 868.
 benzin, Rec. VII, 660.
 electricity, Rec. IX, 627.
 beneficial and harmful, Rec. VI, 280.
 coloration of cilia, Rec. IV, 693.
 decomposition of amygdalin by, Rec. VI, 18.
 destruction by formol, Rec. VII, 225, 312.
 excretion through mammary gland, Rec. XI, 286, 387.
 in agriculture, Rec. XII, 117.
 air, Rec. V, 435.
 air, incubation in gelatin, Rec. VI, 18.
 bitter milk and cheese, Rec. VII, 338.
 brewing industry, Rec. IX, 1095.
- Micro-organisms—Continued.
 in canning industry, Rec. IX, 120; X, 123.
 cultivated soils, Rec. V, 730.
 culture of forage plants, Rec. VIII, 975.
 dairy products, Rec. V, 1047.
 dairying, Rec. IX, 185, 589, 689; X, 388.
 fermentation, Rec. VI, 694.
 human mouth, Bul. 2, II, 94.
 pure cultures, Rec. VII, 19.
 rancid butter, Rec. V, 1033.
 reversion of cane sugar, Rec. VII, 279.
 soil, Rec. VI, 200.
 sterilized milk, Rec. VI, 249.
 tumors, Rec. XII, 193.
 water, Rec. V, 435; VI, 283.
 water, incubation in gelatin, Rec. VI, 18.
 wine, Rec. X, 224, 1016.
 individual variation as affected by artificial media, Rec. IX, 628.
 producing mild form of tuberculosis, Rec. X, 496.
 reaction in a colored nutrient medium, Rec. XI, 794.
 rôle in cheese ripening, Rec. IX, 286.
 saprophytic pathogenesis, Rec. X, 613.
 separation by centrifugal force, Rec. IV, 614.
 structure, Rec. IX, 1030.
 utilization in arts and manufactures, Rec. X, 520.
- Microptetis alabamensis*, notes, Rec. X, 725.
- Micro-photography text-book, Rec. IX, 527; X, 321.
- Microptitis mediana*, notes, Rec. XII, 865.
- Micro-polariscope for food examination, Rec. XII, 516.
- Microscope—
 and its use, Rec. VII, 750.
 horizontal, Rec. VIII, 109.
 photographic camera for, Rec. VII, 469.
 slide, new, Rec. XI, 313.
- Microscopes, improvements in making, Rec. VI, 377.
- Microscopic—
 apparatus, Rec. X, 321.
 examination—
 methods, Rec. VI, 377.
 of water, Rec. XI, 133.
 sections, preparation, Rec. IX, 94.
 specimens, tannin for staining, Rec. VI, 487.
 technique, Rec. X, 321.
- Microscopical Society, American, meeting, Rec. VII, 341.
- Microscopy—
 bacteriological and pathological, Rec. XII, 889.
 of drinking water, Rec. X, 821.
- Microsphepha*—
alni, notes, Rec. IV, 50.
caragane, notes, Rec. XI, 261.
friesii, notes, Rec. X, 267.
grossularia, notes, Rec. IX, 457.
- Microspira tenuis*, n. sp., description, Rec. XII, 721.
- Microsporum, structure and affinities, Rec. VII, 225.
- Microstroma americanorum*, n. sp., notes, Rec. XI, 361.

Microtechnique of animal morphology, Rec. X, 522.

Microthamnion, genus, Rec. IV, 984.

Microtus, revision of genus, Rec. XII, 423.

Mictis symbolica, notes, Rec. X, 769.

Middlings, analyses, Rec. I, 255; V, 312, 596; VI, 931; IX, 809; X, 276, 474; XII, 70, 71, 282.
(See also WHEAT MIDLINGS.)

Midges, notes, Rec. IX, 253.

Miescheria, notes, Rec. XI, 894.

Mignonette—
diseases, treatment, Rec. XI, 752.
fungus, notes, Rec. V, 401.
leaf blight, notes, Rec. VI, 558.

Mignonettes, breeding, Rec. XI, 453.

Migration, as affected by season, Rec. IX, 423.

Mildew—
and black rot, Rec. VII, 311.
effect on composition of bread, Rec. IV, 986.
false, notes, Rec. III, 328.
new, of insects, Rec. V, 926.
on plants under glass, treatment of, Rec. II, 33.

Mildiol for grape downy mildew, Rec. VII, 788.

Military bread, analyses, Rec. VIII, 521.

Milium multiflorum, notes, Rec. III, 595; VI, 721; VIII, 687.

Milk—
abnormal, Rec. IV, 317, 487, 616; V, 655, 824; VI, 576; VII, 629; IX, 184; X, 690.
abnormal—
analyses, Rec. V, 321.
and normal, discrimination, Rec. V, 540.
papers on, Rec. V, 948.
ripening, Rec. V, 440.
absorption of odors, Rec. XI, 581.
acetic acid in, production by lactic-acid bacteria, Rec. XII, 786.
acid test—
for, Rec. XI, 688.
in cheese making, Rec. XII, 884.
acidimeter—
Dornick's, for examination, Rec. V, 440, 928.
tests, Rec. VIII, 441.
acidity, Rec. III, 195; IV, 311, 389; XII, 786.
acidity—
as affected by boric acid, Rec. VIII, 436.
affected by heating, Rec. XII, 1083.
natural, Rec. VIII, 441.
adulterated, calculation of water, Rec. X, 413; XI, 213.
adulteration, Rec. VI, 331; IX, 521, 794; XI, 82, 418.
adulteration—
by skimming, Rec. IX, 185.
detection, Rec. V, 354, 507, 644, 824; VI, 84, 941; VII, 71, 429, 919; XI, 213, 705; XII, 287, 485, 679.
in England, Rec. IV, 193, 223.
nitrate test for, Rec. IX, 589.
report, Rec. V, 260.
with condensed milk, Rec. V, 109.
aeration, Rec. IV, 363, 483; V, 82, 322, 643, 1054; VI, 483; X, 292; XI, 681, 683.
aerators, Rec. VII, 717.
aerators, tests, Rec. III, 891; IV, 363; V, 322, 1054.

Milk—Continued.

albuminized, preparation, Rec. III, 503.

albuminoids—
and extract in, Rec. V, 817.
nomenclature, Rec. IV, 781; V, 950.
of, Rec. VI, 111; XI, 904.
precipitation by heating, Rec. VII, 895; VIII, 929.
precipitation by metaphosphoric acid, Rec. IV, 314.

"albumose," Rec. V, 734.

alcohol content, Rec. IV, 311; IX, 487; XI, 284.

amyloid in, Rec. IV, 390, 514; V, 949.

analyses, Bul. 2, I, 37, 191; Bul. 2, II, 25, 32, 43, 44, 105, 127, 131; Rec. I, 40, 77, 161, 170, 258, 260, 281; II, 53, 65, 121, 162, 197, 201, 203, 257, 286, 294, 315, 323, 334, 359, 370, 403, 441, 446, 464, 499, 515, 582, 630, 666, 761; III, 6, 20, 45, 68, 98, 147, 151, 153, 166, 199, 219, 222, 232, 292, 312, 357, 401, 425, 426, 430, 700, 750, 764, 765; IV, 59, 75, 178, 181, 255, 256, 257, 259, 260, 263, 268, 274, 425, 481, 483, 486, 603, 604, 616, 750, 773, 941, 946; V, 72, 80, 81, 82, 85, 104, 207, 209, 259, 314, 320, 462, 499, 543, 775, 817, 934, 944, 945, 946, 1026, 1033; VI, 338, 343, 577, 934; VII, 161, 338, 413, 463, 717, 893; VIII, 166, 286, 347, 442; IX, 323, 380, 686; X, 281, 285, 384, 413, 790; XI, 213, 281, 769, 770; XII, 108, 279, 280, 389, 679, 975.

analyses—
for different breeds of cows, Rec. II, 65, 163, 202, 359, 403, 404, 441, 464; III, 312; IV, 263; V, 207, 944, 945, 946; VI, 454.
in Holland, Rec. XI, 587.

analysis—
apparatus for, Rec. XI, 23, 313.
Fleischmann's formula, Rec. X, 607.
Mohr-Westphal balance for, Rec. VI, 869; VII, 162.
selection of cows by, Rec. VI, 455.

and its products, Rec. IX, 689.

anthrax bacilli in, Rec. V, 729, 973, 1045.

antiseptics for, Rec. IV, 870; XI, 580.

artificial—
for calves, Rec. XI, 883; XII, 282.
notes, Rec. XII, 1083.
preparations, Rec. XI, 87.

as food, Rec. X, 181.

food for infants, Rec. VIII, 719.

ash—
and phosphate content, Rec. IX, 685.
phosphate content as affected by gestation, Rec. XII, 884.
composition, Bul. 2, II, 107; Rec. II, 593.
constituents, Rec. II, 593; III, 23, 764; VII, 71; IX, 521.
content as affected by feeding phosphate of lime, Rec. III, 579, 744; V, 540, 639, 971.
lime and phosphoric acid in, Rec. V, 639; VI, 335.

asses'—
as a substitute for human milk, Rec. X, 389.
composition, Rec. VI, 383; IX, 590.
for infants, Rec. IX, 590.
properties, Rec. XI, 973.
studies, Rec. IX, 590.

Milk—Continued.

- automatic weighing, Rec. IX, 91.
- bacilli causing butyric fermentation, Rec. XI, 688.
- bacillus, new, Rec. X, 388.
- Bacillus acidi lactici* in, Rec. XII, 1083.
- Bacillus pseudo-tuberculosis* in, XII, 1080.
- bacteria—
 - as affected by ether, Rec. X, 785.
 - as affected by sunlight, Rec. XII, 1080.
 - chemical action of, Rec. VI, 473.
 - content as affected by treatment in centrifuge, Rec. III, 421; IV, 784.
 - in, Rec. I, 192; II, 396, 465, 617; V, 260, 349, 431, 1043, 1049; VI, 18, 168, 249, 473, 483; VII, 158, 429, 629, 897, 991; VIII, 168, 169, 340; IX, 488, 688, 793, 884; X, 87, 290, 388, 390, 490; XI, 386, 688, 786; XII, 183, 389, 591, 785, 879, 1079, 1083.
 - in machine-drawn *v.* hand-drawn, Rec. X, 290.
 - normal and abnormal, Rec. II, 614.
 - peptonizing, Rec. VII, 278; VIII, 441; XII, 682.
 - peptonizing, poisonous action of, Rec. VIII, 536.
 - source, Rec. III, 929; IV, 214; V, 349; VIII, 340.
 - vitality, Rec. XII, 1080.
- bacteriological examination, Rec. II, 465; VIII, 863.
- bacteriology, Rec. XII, 884.
- Bacterium diphtheroides* in, Rec. XII, 1080.
- behavior toward rennet, Rec. VI, 111, 341.
- bibliography, Rec. XII, 501, 786.
- bitches', Rec. VI, 343.
- bitter—
 - cause, Rec. V, 656, 720, 721, 971, 1043, 1044, 1050.
 - for infants, Rec. XII, 186.
 - investigations, Rec. IV, 519, 784; VIII, 930.
 - micrococcus, Rec. III, 384.
 - micro-organisms in, Rec. VII, 338.
- boiled—
 - detection, Rec. VIII, 25; X, 118; XII, 679.
 - value, Rec. V, 260.
- buffaloes'—
 - analyses, Rec. VI, 343, 669.
 - distribution of galactase in, Rec. XI, 580.
 - fat content, Rec. XII, 1082.
- butter-producing capacity as affected by breed, Rec. X, 493.
- buying on—
 - analysis, Rec. II, 324.
 - basis of fat content, Rec. V, 260, 440, 1063.
- by-products, Rec. VI, 941.
- cake—
 - composition, Rec. IV, 319; V, 1067.
 - preparation, Rec. III, 581; IV, 319.
- camels'—
 - composition, Rec. VIII, 732.
 - studies, Rec. VIII, 174.
- can—
 - patent, Rec. VII, 339.
 - vacuum, description, Rec. V, 656.
- care, Rec. XII, 388, 798.
- care on the farm, Rec. IX, 886.

Milk—Continued.

- casein—
 - in, study, Rec. VI, 165.
 - reduction of, Rec. VIII, 933.
 - separation of, Rec. VIII, 725.
- cats', Rec. VI, 343.
- centrifuge, Ludlow's, Rec. VI, 483.
- change—
 - affecting its taste, Rec. V, 1050.
 - in total solids with age, Rec. XII, 879.
- cheese and whey, interrelation, Rec. VI, 473.
- chemical studies, Rec. X, 185.
- chemistry, Rec. V, 440.
- chemistry and bacteriology, handbook, Rec. VII, 897; XI, 489.
- cholera bacilli in, Rec. IV, 317; VI, 18, 168, 249; VII, 158, 897.
- churn tests, Rec. III, 44; IV, 489.
- churning, Bul. 2, II, 25.
- citric acid in, Rec. III, 122, 123; VI, 335.
- clarification, Rec. XI, 984.
- cleanliness in handling, Rec. VIII, 169.
- color—
 - as related to fat content, Rec. VI, 250.
 - cause, Rec. IV, 316; V, 950.
- coloration and coagulation, Rec. VII, 270.
- coloring matters—
 - foreign, Rec. XII, 387.
 - in, detection, Rec. XII, 387.
- colostrum. (*See* COLOSTRUM.)
- combating diseases in, Rec. XI, 390.
- composition— (*See* MILK ANALYSES; and MILK, EFFECT OF.)
- and cost in New Jersey, Rec. IX, 80.
- as related to rate of growth of mammals, Rec. IX, 786.
- at different seasons, Rec. V, 893; VII, 159.
- average, Rec. III, 832.
- conditions affecting, Rec. II, 65, 428; IV, 490; V, 87.
- in Sweden, Norway, and Denmark, Rec. XII, 485.
- monthly variations, Rec. XI, 1084.
- of first and last half of milkings, Rec. I, 40; II, 66; III, 765; IV, 257, 442.
- Danish, Rec. VIII, 257.
- morning's *v.* night's, Rec. II, 65; III, 216, 424.
- solids, Rec. II, 496.
- uniformity, Rec. XI, 188.
- variation, Rec. X, 781; XII, 90, 782.
- variation, causes, Rec. XI, 1085.
- condensed, Rec. VII, 529; X, 493.
- condensed—
 - analyses, Rec. IV, 437; V, 108; VII, 336, 554; XI, 307, 313, 672; XII, 975.
 - detection in fresh milk, Rec. V, 109.
 - determination of cane sugar in, Rec. XII, 211.
 - determination of fat, Rec. XI, 1100; XII, 307, 823.
 - determination of saccharose in, Rec. X, 117.
 - diluting, Rec. VIII, 635.
 - estimation of fat by Gerber method, Rec. X, 492.
 - manufacture, Rec. XI, 1085.

Milk—Continued.

condensed—continued.

proposed manufacture, Rec. V, 824.

Werner-Schmid method of analysis, Rec. III, 832.

condensing, Rec. VII, 339, 529.

condensing—

apparatus for, Rec. VII, 529; XII, 683.

new method, Rec. VIII, 1033.

consistency, conditions affecting, Rec. IX, 582.

constituents transmitted from food, Rec. IV, 519.

container, sterile, Rec. XI, 714.

control— (See MILK INSPECTION.)

cooked and uncooked—

for infants, Rec. V, 926.

nutritive value, Rec. IV, 316.

cooked, from cows with foot-and-mouth disease, feeding to calves, Rec. IV, 986.

coolers, tests, Rec. IV, 364; V, 1054; VI, 754.

cost— (See also MILK PRODUCTION.)

of food per pound, Rec. III, 20.

production, Rec. II, 499, 573; IX, 80; XII, 384, 480, 982.

per quart, Bul. 2, II, 98, 99.

cows', methods for rendering it more like human milk, Rec. VIII, 530, 536.

cream, and—

butter relations, Rec. IV, 270.

skim milk, relative composition, Rec. VIII, 827.

creaming— (See CREAM RAISING.)

on the milk route, Rec. IV, 785.

curdled—

analysis, Rec. X, 90.

determination of fat in, Rec. VI, 189.

specific gravity, Rec. V, 541, 644, 928; VI, 11, 189, 611; VII, 273, 555; VIII, 466.

curdling—

as affected by acidity, Rec. III, 355.

bacteriology and chemistry, Rec. VII, 806.

by cholera bacilli, Rec. V, 1046.

heating, Rec. IX, 487.

rennet. (See RENNET.)

during thunderstorms, Rec. III, 195; VIII, 531.

of rich and poor, Rec. VII, 339.

decomposition, Rec. IX, 687.

desiccated, Rec. VI, 473.

destroying foam in centrifugal skimming, Rec. XII, 1081.

detection of—

aniline orange, Rec. XII, 823.

azo-colors in, Rec. XII, 823.

benzoic acid in, Rec. XI, 705.

cane sugar in, Rec. XI, 211.

carbonates of soda in, Rec. XII, 908.

formaldehyde in, Rec. VIII, 373; XI, 213, 418; XII, 680, 1005.

formalin in, Rec. VII, 461; VIII, 200; IX, 419, 521; XI, 213, 418, 904.

formol in, Rec. VIII, 459.

goats' milk in, Rec. IV, 784; V, 260.

nitrates in, Rec. XI, 87.

preservative agents in, Rec. VII, 339, 461, 463.

Milk—Continued.

detection of—continued.

salicylic and benzoic acids, Rec. XI, 705.

salicylic and boric acids, Rec. XI, 419.

sodium bicarbonate, Rec. VIII, 562.

tubercle bacilli, Rec. III, 928; IV, 214, 317;

V, 1045; VI, 669; VII, 67, 95; VIII, 929;

X, 286; XI, 588, 678, 679, 790, 887; XII, 90, 92, 691.

determination of—

acidity, Rec. III, 355; V, 511, 928, 963, 1101;

VI, 866; VII, 71; VIII, 666, 933; IX, 92,

589; XI, 578, 1007; XII, 212, 485.

albumin in, Rec. VI, 185, 372; VII, 161; VIII, 561.

albuminoids, Rec. III, 928.

boric acid in, Rec. VII, 745; VIII, 537.

casein in, Rec. III, 497; V, 260, 511, 543;

VI, 966; VII, 921; VIII, 861.

cream content, Rec. IV, 289; VI, 111.

dirt, Rec. X, 607, 1096; XI, 789, 1007; XII, 983.

fat, Bul. 2, I, 212; Rec. II, 565; IV, 776, 784; V, 126, 440, 647, 656, 734, 801, 824,

1025, 1027; VI, 15, 185, 250, 271, 579, 611,

612, 619, 847, 868; VII, 161, 462, 807, 920;

VIII, 742; IX, 183, 379, 419, 494; X, 821,

920; XI, 213, 419, 510, 904.

fat, errors in, Rec. VII, 921.

formalin in, Rec. XI, 904.

formic aldehyde in, Rec. VIII, 378, 562, 667.

lactose in, Rec. IV, 987; V, 260; IX, 225.

nitrogen in, Rec. III, 928; VIII, 22.

sodium bicarbonate, Rec. VIII, 562.

solids and fat, Rec. XI, 589, 905.

sugar, Rec. IV, 987; V, 260; VII, 829; VIII, 200; IX, 225, 419, 521; XII, 908, 1005.

water, Rec. X, 413, 607, 1093; XI, 213.

digestibility, Rec. III, 832; IV, 986; V, 957, 959; IX, 781; XI, 874.

digestibility—

as affected by lime content, Rec. V, 734, 960.

of pasteurized and sterilized, Rec. III, 832; IV, 92, 311; V, 959; VII, 161; VIII,

719; XI, 882.

dirt in, Rec. XII, 184, 982.

disease spread by, Rec. IV, 785; VII, 529, 808; VIII, 439.

ducts—

bacteria in, Rec. X, 390, 994.

purulent inflammation, Rec. IX, 893.

effect of—

age of cow, Rec. VI, 456; VII, 336; X, 892; XII, 879.

aphthous fever on, Rec. XI, 493.

beer yeasts, Rec. IX, 687.

bone meal on, Rec. VI, 926.

certain plants, Rec. IV, 519.

change from barn to pasture, Rec. III, 477; V, 317; VI, 926; XII, 385.

change of milk, Rec. II, 429; XI, 780; XII, 83.

change of quarters, Rec. IV, 483.

cocoanut cake on fat content, Rec. III, 67.

corn on, Rec. V, 970.

Milk—Continued.

effect of—continued.

- cow being in heat, Rec. X, 85.
- dehorning, Bul. 2, I, 214; Rec. II, 429; VII, 56.
- drought, Rec. VIII, 825; X, 295; XI, 676.
- Fagopyrum* spp. on, Rec. V, 970.
- fat in food, Rec. X, 585, 690.
- fatigue, Rec. VIII, 86, 337; XI, 384; XII, 285.
- feeding alfalfa hay, Rec. XII, 90.
- feeding calcium phosphate, Rec. V, 639.
- feeding molasses preparations, Rec. IX, 875.
- feeding oat straw, Rec. VII, 523, 616.
- feeding phosphate of lime, Rec. III, 579, 740; V, 540, 639, 971.
- feeding potato vines, Rec. VI, 76.
- feeding rape seed cake, Rec. V, 968, 969.
- feeding turnips, Rec. IX, 92; X, 287; XI, 81.
- food on, Rec. II, 67, 277; III, 88, 219, 362, 367, 398; IV, 255, 259, 519, 601, 606, 986; V, 87, 130, 228, 440, 596, 635, 640, 642, 649, 655, 733, 824, 917, 967, 969, 970; VI, 160, 461, 462, 468, 748, 752, 926, 935, 969; VII, 64, 150, 155, 248, 331, 705, 708, 973, 979; VIII, 86, 256, 335, 627, 822, 939, 1016; IX, 282, 292, 487, 683, 984; X, 86, 91, 486, 584, 588, 683, 1083; XI, 86, 184, 284, 484, 489, 587, 675, 688, 1080, 1081; XII, 678, 679, 784.
- food on churnability, Bul. 2, II, 28; Rec. II, 648; III, 472.
- fractional milking, Rec. I, 40; II, 66; III, 765; IV, 257, 442.
- freezing, Rec. II, 762; XI, 886.
- frequency of milking, Rec. II, 66; III, 656; V, 228, 258, 642; VI, 580; VII, 152; IX, 684; X, 85; XII, 383, 590.
- Glauber's salts on, Rec. V, 823, 918.
- grain ration with pasturage, Bul. 2, II, 23.
- handling, Rec. III, 474.
- heat on, Rec. IV, 978, 988; V, 962; VII, 161.
- heavy grain feeding, Rec. III, 472.
- heredity, Rec. XII, 482.
- individual characteristics, Rec. II, 65; III, 216, 424; XII, 784.
- lactation period, Rec. IV, 940, 941; V, 320, 638, 947; VI, 81, 445; VII, 50; VIII, 1023; IX, 986; X, 89; XI, 486; XII, 485, 782.
- lead acetate, Rec. VIII, 258.
- light on souring, Rec. XII, 91.
- malt distillery on alcohol in, Rec. XI, 284.
- micro-organisms on casein, Rec. XI, 1085.
- milking fast and slow, Rec. II, 428; VIII, 1032.
- milking one teat at a time, Rec. II, 428; IX, 278.
- nervous system of cow, Rec. XI, 779.
- plants on quality and odor, Rec. VI, 580.
- potassium chromate, Rec. V, 971.
- proteolytic fermentations, Rec. XII, 87.
- sewage, Rec. XI, 282.
- sickness of cows on healthfulness, Rec. IV, 988.
- ilage on, Rec. II, 66.
- storing on, Rec. VIII, 732.

Milk—Continued.

effect of—continued.

- time and method of milking, Rec. VII, 605.
- time of calving, Rec. VI, 931; XI, 389.
- time of feeding, Rec. VII, 605.
- time of milking on fat content, Rec. II, 363; VI, 935; IX, 795.
- tuberculin, Rec. VIII, 931.
- tuberculosis, Rec. X, 888.
- turnips, Rec. IX, 92; X, 287; XI, 81.
- weather, Rec. V, 322; VI, 924.
- working cows, Rec. VIII, 441, 586; X, 993.
(See also MILK PRODUCTION.)
- effect on—
 - cholera bacilli, Rec. VI, 249.
 - metabolism of nitrogen, Rec. IX, 275.
 - organic phosphorus in feces, Rec. XII, 477.
- Ephestia künniella* in, Rec. IV, 615.
- ewes'. (See MILK, SHEEP'S.)
- emulsion and kerosene as insecticides, Rec. V, 206.
- examination, Rec. VII, 463, 555; VIII, 863.
- examination—
 - microscopical, Rec. I, 40; IV, 256, 258, 264.
 - on a large scale, Rec. V, 440.
- factor for converting fat into butter, Rec. VII, 177.
- facts about, Rec. VIII, 438.
- fat, apparatus for determination, Rec. IX, 918; X, 20; XI, 313.
- fat as affected by—
 - cotton-seed meal, Rec. V, 824, 917.
 - fat in rations, Rec. X, 584, 690; XI, 484, 587.
 - feeding sugar, Rec. III, 744.
 - feeding tallow, Rec. IX, 388.
 - food, Rec. III, 219, 262, 367; V, 440, 640, 824; VI, 461, 462; VII, 705, 979; VIII, 86, 256; IX, 683; X, 86; XI, 184, 1081, 1082.
 - individuality of cows, Rec. V, 813; VI, 936; X, 91.
 - linseed oil emulsion, Rec. X, 487.
 - method and stage of milking, Rec. V, 644, 965; IX, 278.
 - pasturage, Rec. XI, 781, 782.
 - temperature, Rec. VIII, 432.
 - turnips, Rec. IX, 92; X, 287; XI, 81.
- fat—
 - as related to cheese yield, Rec. VII, 339; VIII, 728; IX, 181; X, 295.
 - butter-making efficiency, Rec. IV, 272; V, 1054.
 - extractor, Rec. IX, 494.
 - globules, Rec. III, 23, 472; IV, 266, 271; V, 123, 655, 951, 954; VI, 81; VII, 255; VIII, 161, 337; XI, 186.
 - globules, changes during lactation, Rec. IV, 266; VI, 81.
 - globules, constitution, Rec. IX, 176.
 - globules in milk of different kinds of animals, Rec. VI, 343.
 - globules, number and size, Bul. 2, II, 107; Rec. II, 454; V, 939.
 - globules, variation, Rec. VIII, 826.
 - glycerids in volatile acids, Rec. VII, 618.
 - importance and increase, Rec. V, 440, 927.
 - increase, Rec. V, 440.

Milk—Continued.

fat—continued.

investigations, Rec. V, 942.

ratio to casein, Rec. II, 68; III, 475; V, 895; VII, 159.

refractometer, Rec. VII, 556.

source, Rec. IV, 257; VI, 1011; IX, 1083; X, 689; XI, 284, 973.

variation, Rec. I, 81; IV, 784; VII, 630; XII, 683.

fault, investigation, Rec. VI, 83.

ferment—

coagulating, new, Rec. XI, 888.

reaction, Rec. XII, 108.

fermentation, Rec. IV, 189, 201, 202; VII, 429.

fermentation—

as affected by mineral salts, Rec. V, 260, 1047.

test, Rec. V, 260, 1045.

ferments, unorganized, in, Rec. X, 785.

fertilizing constituents, Bul. 2, II, 107; Rec. V, 944; XII, 927.

fever—

effect on flesh of cow, Rec. II, 295.

etiology, Rec. XI, 693.

notes, Rec. II, 295, 653; III, 152; V, 79; VI, 245; VII, 893; VIII, 428; XI, 995; XII, 394, 892, 893.

relapse, Rec. XII, 293.

treatment, Rec. II, 295, 653; VII, 67, 249; IX, 893; X, 494, 794, 895; XI, 190, 192, 288, 593, 696, 796, 894; XII, 685, 791, 792, 886, 1093.

fibrin, studies, Rec. I, 162; II, 429.

filter, Kröhnke, Rec. XI, 284.

filters, Rec. IV, 988; V, 1043, 1047.

fistula, in a goat, Rec. XI, 288.

flavor as affected by silage odors, Rec. IX, 378.

fluctuations under different conditions, Rec. XI, 486.

food constituents of, Rec. V, 944, 966.

for calves, Rec. III, 221; V, 68, 634; VI, 923; XII, 669.

cheese making, Rec. IV, 492; V, 85, 604, 605, 689, 996; XII, 384.

children, preparation, Rec. VII, 339.

cows, Rec. IV, 121; V, 969.

infants, Rec. VIII, 719.

for infants—

asses', Rec. IX, 590.

bitter, Rec. XII, 186.

cooked and uncooked, Rec. V, 926.

from one cow v. mixed milk, Rec. XI, 692.

"germ free," Rec. XI, 889.

preparation, Rec. V, 258.

sterilized, Rec. V, 1050; VIII, 330.

Swedish, analyses, Rec. X, 791.

for lambs, Rec. II, 436.

fore—

bacterial flora, Rec. VII, 174; VIII, 537.

bacteriology as related to cheese inflation, Rec. VII, 528, 991.

fraud, Rec. VIII, 436.

freezing point, Rec. VI, 611.

fresh and boiled, Rec. VI, 343.

from Chetzlower herd, Rec. VII, 986.

from cows having—

anthrax, Rec. V, 973.

foot-and-mouth disease, Rec. V, 973.

Milk—Continued.

from cows of mountain breeds, Rec. XI, 185.

from different—

breeds, Bul. 2, II, 95; Rec. I, 258, 260, 269, 321; II, 65, 163, 202, 241, 243, 359, 364, 403, 441, 464, 491, 499, 592, 647; III, 19, 296, 301, 311, 357, 362, 777; IV, 223, 255, 263, 268, 273, 403; V, 207, 655, 733, 945, 1053, 1060, 1064; VI, 454, 457, 935, 1013; VII, 45, 46, 47, 337; VIII, 634; IX, 688, 882; XI, 284, 888; XII, 90.

breeds, digestibility, Rec. V, 957.

kinds of animals, Rec. V, 824; VI, 343, 668.

parts of the udder, Rec. IX, 277.

from Indian cows, fat content, Rec. XII, 1082.

individual cows, Rec. VIII, 824.

inoculated animals, study, Rec. IV, 987.

Kildebrond cows, Rec. IX, 92, 290.

Swedish herd, fat content, Rec. IV, 778.

the bottom of cans, variation, Rec. III, 199.

from tuberculous—

cows, Rec. II, 106; V, 513, 973; X, 794.

cows, feeding to calves, Rec. X, 693; XI, 890, 999; XII, 1086.

frozen—

analyses, Rec. IV, 774; V, 948; IX, 582.

shipment, Rec. VII, 255; X, 493, 690.

galactase in, Rec. XI, 579.

Gärtner's prepared—

analyses, Rec. VIII, 821.

digestion, Rec. VIII, 821.

gaseous, preparation, Rec. VII, 339.

germ content, Rec. V, 1049; X, 87; IX, 795.

germicidal—

action of carbonic acid in, Rec. IV, 519.

properties, Rec. VII, 71.

germs, apparatus for destroying, Rec. V, 440.

glands, excretion of bacteria through, Rec. VII, 71.

goats'—

analyses, Rec. V, 440, 665, 961; VI, 343; IX, 688; X, 383; XII, 1083.

and colostrum, Rec. X, 383.

butter from, Rec. V, 655, 816, 956.

cheese, composition of fat in, Rec. VII, 526.

cheese from, Rec. VI, 82.

comparative studies, Rec. IX, 795; XII, 590.

detection in cow's milk, Rec. V, 260.

digestibility, Rec. V, 957.

for children, Rec. VIII, 427, 537, 719.

immunity to cholera through, Rec. V, 439, 963.

in manufacture of Emmenthaler cheese, Rec. XII, 684.

production, Rec. IX, 795, 1083.

handling, Rec. IX, 686; XI, 587.

handling—

and testing, Rec. V, 361.

in Swedish creameries, Rec. X, 187.

plants used in, Rec. V, 1066.

heating—

before souring, Rec. V, 1044.

effect on quality of butter, Rec. I, 135.

for butter making, Rec. IV, 447; XI, 84.

Milk—Continued.

human—

- abnormal, *Rec. VI*, 84.
- analyses, *Rec. VI*, 343; *IX*, 688; *X*, 189, 689; *XI*, 1007; *XII*, 593, 784.
- and cow's, difference, *Rec. III*, 656, 744; *IV*, 987; *V*, 961.
- artificial, *Rec. VIII*, 441.
- bacteriological examination, *Rec. V*, 130, 254.
- casein in, *Rec. VI*, 165.
- determination of lactose in, *Rec. VIII*, 105, 284.
- fat in, *Rec. VI*, 167, 336.
- galactase in, *Rec. XI*, 580.
- germ content, *Rec. III*, 656; *V*, 1048.
- "lacktina," a substitute for, *Rec. V*, 1067.
- nuclein in, *Rec. IV*, 987; *V*, 246.
- phosphorus content, *Rec. IX*, 685.
- Staphylococci in, *Rec. V*, 1048.
- tubercle bacilli, *Rec. VII*, 95; *XII*, 393.
- "humanized," preparation, *Rec. IX*, 175.
- ice, *Rec. X*, 690.
- immediate *v.* delayed setting, *Rec. IV*, 445.
- impurities, *Rec. IX*, 284, 378, 805.
- in different forms, rapidity of digestion, *Rec. XI*, 874.
- relation to health and disease, *Rec. VIII*, 933.
- infectious, remedy, *Rec. IX*, 185.
- infectiousness, *Rec. VII*, 161.
- inspection, *Rec. III*, 261; *IV*, 223; *VIII*, 525, 536; *IX*, 887, 991; *X*, 892; *XI*, 1085.
- inspection—
 - and milk standards, *Rec. VII*, 529.
 - in Chicago, *Rec. IV*, 520.
 - cities, *Rec. XII*, 389.
 - Geneva, *Rec. X*, 492.
 - Germany, *Rec. VIII*, 536; *XI*, 790; *XII*, 289.
 - Leipzig, *Rec. XII*, 986.
 - Philadelphia, *Rec. XI*, 185.
 - Shanghai, *Rec. XI*, 984.
 - Wisconsin, *Rec. IV*, 193.
- manual, *Rec. XII*, 786.
- nature in future, *Rec. XI*, 984.
- sanitary, *Rec. V*, 1063.
- investigation, methods, *Rec. VIII*, 174.
- iron content, *Rec. VII*, 156.
- keeping—
 - in hot weather, *Rec. XI*, 487, 498.
 - loss in solids in, *Rec. VI*, 578.
 - quality, *Rec. IV*, 316, 383; *V*, 440.
 - quality as affected by bacteria, *Rec. VIII*, 340.
- kephir, description, *Rec. V*, 1067.
- lactic acid in, *Rec. IV*, 316, 389.
- lactose. (*See MILK SUGAR.*)
- laws, digest, *Rec. VI*, 941.
- lecithin content, *Rec. XII*, 1077.
- leucocytes in, *Rec. XI*, 701, 785.
- lime—
 - and phosphoric acid in ash of, *Rec. V*, 639; *VI*, 335.
 - in, *Rec. V*, 960.
- machine-drawn—
 - effect of germs on flavor of butter, *Rec. X*, 291.
 - for cheese making, *Rec. X*, 295.

Milk—Continued.

management, *Rec. III*, 788.

mares'—

- analyses, *Rec. IX*, 685.
- galactase in, *Rec. XI*, 580.

market—

- germ content, *Rec. V*, 130, 1043.
- of Christiana, impurities in, *Rec. VI*, 342.
- St. Petersburg, bacteriology, *Rec. VII*, 71, 429; *VIII*, 265.

Würzburg, Germany, impurities, *Rec. III*, 929; *IV*, 214.

- Mecklenburg herd, fat content, *Rec. IV*, 987.
- methods of analysis, *Bul. 2, I*, 212; *Bul. 2, II*, 65; *Rec. II*, 91, 120, 242, 294, 323, 359, 503, 565; *III*, 45, 132, 167, 192, 193, 419, 497, 499, 654, 765; *IV*, 66, 461; *V*, 104, 107, 689; *VII*, 558; *X*, 413, 515; *XII*, 908, 1007.

microbic action of carbonic acid in, *Rec. IV*, 519.*Micrococcus lactis varians* in, *Rec. XII*, 1083.mineral matter as affected by gestation, *Rec. XII*, 884.

mules'—

- analyses, *Rec. V*, 961.
- digestibility, *Rec. V*, 957.

nature and properties, *Rec. V*, 1008.nitrogen content, *Rec. V*, 524.nuclein content, *Rec. IV*, 987; *V*, 246, 949.obtaining under aseptic conditions, *Rec. X*, 87.

odor—

- as affected by plants, *Rec. VI*, 580.
- bad, cause, *Rec. V*, 1101.

odors, effect on quality, *Rec. V*, 130.*Oidium lactis* in, *Rec. V*, 919.oxy-ferments of, *Rec. XII*, 118.pasteurization, *Rec. IV*, 223, 316, 381, 383; *V*, 541, 1049, 1050; *VII*, 68, 629, 897, 987; *VIII*, 437, 630, 722; *IX*, 494, 590, 986; *X*, 91, 189, 690.

pasteurization—

- and sterilization, *Rec. VII*, 529; *IX*, 494; *X*, 91.
- at 140° F., *Rec. XII*, 84.
- continuous, *Rec. XII*, 287.
- experiments, *Rec. XII*, 1031.
- law in Denmark, *Rec. XI*, 790.

pasteurized, *Rec. IX*, 583.

pasteurized—

- and sterilized, *Rec. V*, 361.
- and sterilized, digestibility, *Rec. IV*, 92, 311; *V*, 959; *VII*, 161; *VIII*, 719; *XI*, 882.
- effect on curdling with rennet, *Rec. IV*, 316.
- fat content, *Rec. VII*, 71, 255.
- for cheese making, *Rec. X*, 293, 493; *XII*, 288.
- in creameries, *Rec. V*, 440, 1058, 1059.
- method of testing, *Rec. VIII*, 441; *IX*, 494; *X*, 384.
- Storch test for, *Rec. XI*, 785.
- v.* sterilized, *Rec. VIII*, 89.

pasteurizing—

- apparatus, *Rec. V*, 541; *VII*, 339; *VIII*, 441, 473, 834, 1032; *IX*, 388, 689; *X*, 493, 784; *XI*, 387.
- by Soxhlet's method, *Rec. V*, 1050.
- for butter making, *Rec. IV*, 447; *V*, 440, 646, 1025, 1058, 1059; *X*, 288, 886, 889; *XI*, 85, 296, 681, 976; *XII*, 386.

Milk—Continued.

- pathogenic microbes in, Rec. XII, 1080.
- pathology, Rec. XI, 677.
- payment for—
 - at creameries, Rec. I, 321; II, 378; VIII, 531; IX, 388; XII, 90.
 - on basis of quality, Rec. VIII, 553; IX, 297, 388, 985; XII, 186.
- peptonizing bacteria, Rec. VII, 278; VIII, 441, 536; XII, 682.
- phosphate of lime in, Rec. V, 639; VI, 335.
- phosphates—
 - and casein as affecting lactic fermentation, Rec. IV, 987; V, 247, 260, 656, 814, 1045.
 - as affected by gestation, Rec. XII, 884.
 - in, Rec. III, 503; IV, 784, 873, 978; V, 639, 949; VI, 335; VIII, 1032; IX, 685.
- physiology and mineral constituents, Rec. VII, 71.
- plants used in curdling, Rec. V, 1066.
- poisoning, Rec. XII, 683.
- poisonous action of peptonizing bacteria, Rec. VIII, 536.
- preparation of a new beverage from, Rec. VI, 847.
- preparations, Rec. XI, 587.
- preparations, examination, Rec. X, 492.
- preservation, Rec. IV, 784, 987, 988; VI, 84, 169; VII, 529, 629, 896; VIII, 561, 562; IX, 687; X, 515; XI, 386, 583, 599.
- preservation—
 - by formalin, Rec. VII, 460, 528; XI, 386.
 - freezing, Rec. IX, 290, 581, 582, 795.
 - for analysis, Rec. VI, 250; X, 90, 118.
 - new method, Rec. X, 385.
 - with anilin rose pink, Rec. II, 331.
 - boracic acid, Rec. IV, 519, 918; V, 1047.
 - formaldehyde, Rec. XI, 582, 587.
 - fusel oil, Rec. II, 331.
 - potassium bichromate, Rec. V, 83, 123, 124, 125, 1001.
 - potassium chromate, Rec. VIII, 561.
 - potassium permanganate, Rec. V, 124.
 - sodium fluorid, Rec. II, 331; V, 737.
- preservatives, Rec. II, 331, 504; IV, 223, 522; IX, 794; X, 690, 1096; XI, 582; XII, 680, 879.
- preservatives—
 - antiseptics as, Rec. IV, 870; V, 928; XI, 528.
 - chromates, Rec. XI, 984.
 - tests, Rec. III, 195; VIII, 531.
- produced on potato slump, Rec. VII, 529.
- producer T. B., analyses, Rec. VII, 702.
- product, new, manufacture, Rec. VII, 161.
- production and inspection, Rec. XI, 1085.
- production as affected by— (See also MILK, EFFECT OF.)
 - automatic watering trough, Rec. X, 84.
 - blood molasses, Rec. X, 588.
 - breeding, Rec. V, 972.
 - care of cows, Rec. V, 823.
 - change from barn to pasture, Rec. III, 477; V, 317; VI, 926; XII, 385.
 - clover hay, Rec. X, 1083.

Milk—Continued.

- production as affected by—continued.
 - clover hay and sunflowers, Rec. V, 634.
 - clover, Rec. V, 634, 969.
 - cocoa cake, Rec. III, 67; V, 968; X, 1083.
 - cocoa molasses, Rec. X, 588.
 - cotton-seed meal, Rec. III, 469; V, 968.
 - dehorning, Bul. 2, I, 214; Rec. II, 429; VII, 56; XII, 782.
- different methods of feeding, Rec. XII, 782.
- different milkers, Rec. XII, 288, 782.
- distillery slop, Rec. V, 1033.
- dried brewers' grains, Rec. V, 970, 1033.
- drought, Rec. VIII, 825; X, 295; XI, 676.
- exercise, Rec. VIII, 254; X, 85.
- fat in food, Rec. X, 584, 690; XI, 484, 587.
- fatigue, Rec. VIII, 86, 337; XI, 384; XII, 285.
- flesh meal, Rec. VII, 708.
- food, Bul. 2, I, 159; Rec. II, 67; III, 88, 398; IV, 519, 599, 601; V, 228, 440, 596, 635, 640, 642, 655, 967, 970; VI, 160, 468, 658; 748, 752; VII, 64, 150, 248, 331, 705, 708, 977; VIII, 939, 1016; IX, 292, 487, 986; X, 91, 486, 588, 1083; XI, 86, 284, 688, 986, 1078, 1080.
- food and temperature, Rec. V, 598.
- frequency of feeding, Rec. X, 84.
- frequency of milking, Rec. II, 66; III, 474, 656; V, 228, 258, 642; VI, 580; VII, 152; IX, 684; X, 85; XII, 383.
- grain and concentrated feeds, Rec. IX, 879, 887.
- imperfect ventilation, Rec. IV, 180.
- light, Rec. X, 85.
- linseed cake, Rec. X, 1083.
- milking fast and slow, Rec. VIII, 1032.
- molasses distillery waste, Rec. X, 588.
- nitrogenous and carbonaceous rations, Rec. VI, 748.
- nutrients from different sources, Rec. X, 480.
- Nutritone, Rec. IX, 881.
- nutritive ratio, Rec. VII, 604; VIII, 823.
- pasturage, Rec. XI, 587, 782.
- period of lactation, Rec. IV, 941; V, 638; VI, 81; X, 89; XI, 486; XII, 485, 782.
- protein, Rec. XI, 577.
- quantity of food, Rec. VIII, 822.
- rain storms, Rec. V, 322.
- rations, Rec. XII, 382.
- salting, Bul. 2, I, 108.
- season, Rec. II, 499.
- shelter, Rec. V, 972.
- soy-bean meal, Rec. V, 969.
- spaying, Rec. II, 197; XI, 86, 696.
- temperature, Rec. V, 322; VI, 1023.
- temperature of stable, Rec. VIII, 432.
- time of calving, Rec. VI, 931; XI, 389.
- treatment, Rec. V, 972.
- tuberculin test, Rec. VIII, 553, 933; X, 395.
- type of cows, Rec. XII, 782.
- vetches, Rec. VII, 64; VIII, 626.
- weather, Rec. V, 322, 972; VI, 924.
- weight of cows, Rec. XII, 782.
- work, Rec. VIII, 441, 536; X, 993.

Milk—continued.

production—

- beet pulp *v.* sugar beets for, **Rec. X**, 587.
- beets for, **Rec. V**, 887.
- beets *v.* silage for, **Rec. I**, 141.
- by Aberdeen cows, **Rec. III**, 357.
 - Algauner cows, **Rec. VIII**, 440.
 - Angler cows, **Rec. IX**, 1088.
 - Ayrshire cows, **Rec. V**, 945.
 - Breitenberg cows, **Rec. IX**, 388.
 - different breeds of cows, **Rec. III**, 401;
 - IV**, 263, 268, 271, 941; **V**, 320; **VI**, 68.
 - Dutch cows, **Rec. V**, 1064.
 - East Friesian herds, **Rec. VIII**, 721.
 - goats, **Rec. IX**, 1083; **XI**, 587.
 - Holstein-Friesian herds, **Rec. VII**, 523.
 - Jersey cows, **Rec. II**, 403.
 - Norwegian and Danish cows, **Rec. IX**, 1088.
 - Norwegian dairy herd, **Rec. VI**, 76, 242.
 - Oldenburger cows, **Rec. VIII**, 440.
 - Red Polled cows, **Rec. II**, 404, 441.
 - sheep, **Rec. V**, 540, 1064; **VII**, 524.
 - Shorthorn cows, **Rec. II**, 403.
- comparison of breeds for, **Rec. VII**, 45; **VIII**, 634; **IX**, 882.
 - (*See also* Cows, BREED TESTS.)
- conditions affecting, **Rec. V**, 329; **X**, 389.
- corn meal for, **Rec. V**, 968.
- corn meal *v.* bran and linseed meal for, **Rec. V**, 889.
- corn silage for, **Rec. I**, 96; **II**, 247.
- corn silage *v.* corn fodder for, **Bul. 2**, 1, 193; **Rec. II**, 430, 440.
- corn silage *v.* field beets for, **Rec. I**, 141.
- corn silage *v.* roots for, **Rec. V**, 317.
- corn silage *v.* sugar beets for, **Rec. II**, 247; **V**, 887, 969.
- cost, **Bul. 2**, 11, 98; **Rec. II**, 499, 573, 575; **III**, 20; **IV**, 65, 66, 268, 419, 936; **V**, 1065; **VI**, 635, 663; **IX**, 80; **X**, 483, 492; **XI**, 490, 784, 884, 885; **XII**, 384, 480, 982.
- economy, **Rec. VII**, 523.
- from different parts of the udder, **Rec. IX**, 277.
- ground oats *v.* bran for, **Rec. II**, 430, 440.
- hay and corn silage for, **Rec. II**, 645.
- hygiene, **Rec. VIII**, 347.
- hygiene of domestic animals, **Rec. VII**, 804.
- in Denmark, **Rec. XII**, 91.
- linseed meal and bran *v.* corn meal for, **Rec. V**, 889.
- linseed meal, old process, for, **Rec. V**, 1065.
- of cows, indications, **Rec. X**, 679.
- pasture grass *v.* dry fodder for, **Rec. II**, 66.
- pea and oat hay for, **Rec. V**, 1065.
- per pound of live weight, **Rec. V**, 1064.
- sale in vicinity of Copenhagen, **Rec. VII**, 992.
- sour grass *v.* clover hay for, **Rec. X**, 1083.
- sugar beets for, **Rec. II**, 247.
- sugar beets *v.* diffusion residue for, **Rec. X**, 587.
- text-book, **Rec. V**, 823.
- variation, **Rec. II**, 201, 202, 428, 564; **III**, 216; **VIII**, 336; **X**, 781; **XII**, 481.

Milk—Continued.

production—continued.

- wide *v.* narrow rations for, **Rec. VI**, 656.
- with salt-marsh hays, **Rec. X**, 485.
- products, **Rec. VII**, 161; **X**, 491.
- products—
 - analyses, **Rec. V**, 259; **VI**, 934; **X**, 413; **XI**, 281.
 - as affected by different causes, **Rec. XII**, 782.
 - Babcock method of analysis, **Rec. V**, 689.
 - bacterial examinations, **Rec. XI**, 977.
 - chemistry, **Rec. V**, 440.
 - methods of analysis, **Rec. V**, 259.
- profit from selling, **Rec. VII**, 423; **IX**, 92.
- proteid, new, **Rec. X**, 782.
- proteids—
 - food value, **Rec. XII**, 780.
 - of, **Rec. V**, 950; **IX**, 222.
 - of, reagents for, **Rec. XII**, 19.
 - purification, **Rec. X**, 388; **XII**, 185, 593.
 - putrefaction, **Rec. III**, 928; **V**, 963.
 - quality, maintaining throughout the year, **Rec. XI**, 884.
- rabbit's, analyses, **Rec. VI**, 343, 669.
- rats', **Rec. VI**, 343.
- raw and cooked, distinction between, **Rec. VIII**, 441; **IX**, 494.
- reaction, **Rec. IV**, 519, 987; **V**, 957.
- records—
 - and tests, **Rec. VIII**, 933.
 - of American cows, **Rec. V**, 824.
- recovery of food ingredients in, **Rec. V**, 966.
- red, color-forming micrococcus in, **Rec. VIII**, 933.
- registering scales, **Rec. VIII**, 175.
- regulation of sale, **Rec. VIII**, 1032.
- regulations of sale in—
 - Prussia, **Rec. XI**, 790.
 - Saxony, **Rec. XI**, 790.
- reindeer's—
 - analyses, **Rec. VII**, 712.
 - butter, analyses, **Rec. XI**, 789.
 - cheese, composition of fat in, **Rec. VII**, 526.
 - cheese from, **Rec. VI**, 82.
- relation—
 - between specific gravity, fat, and solids-not-fat, **Rec. VI**, 867; **XII**, 186.
 - of constituents, law of, **Rec. XII**, 286.
 - cream content to fat content, **Rec. I**, 81; **III**, 928; **IV**, 67, 213; **V**, 950.
 - fat and casein, **Rec. II**, 68; **III**, 475; **V**, 895; **VII**, 159.
 - to lower organisms, **Rec. V**, 361.
 - tuberculosis infection of the lymphatic system, **Rec. XI**, 592.
- "rennet test," **Rec. VI**, 250, 341.
- rich—
 - and poor, **Rec. VI**, 84.
 - in fat, breeding for, **Rec. V**, 655, 1053; **VI**, 573.
- richness—
 - factors affecting, **Rec. XI**, 779.
 - in cows of mountain breeds, **Rec. XI**, 185.
- ropiness, **Rec. IX**, 183, 686, 689; **XI**, 282, 284, 999.

Milk—Continued.

ropy—

cause and prevention, Rec. III, 832; IV, 519.

examination, Rec. VI, 674.

salty, Rec. V, 1101.

samples—

preservation, Rec. II, 101, 331; III, 150; IV, 223, 692; V, 123, 124, 260, 536; IX, 489; XI, 385, 681; XII, 185.

preservation and analysis, Rec. VIII, 441.

sampling, Rec. II, 359, 378, 565; III, 150, 616; IV, 784, 988; VI, 109; VIII, 829; XII, 185, 884.

sampling—

composite, Rec. III, 150, 778; IV, 189, 195, 475; V, 645, 1001; VII, 714.

errors, Rec. II, 378.

pipette for, Rec. XII, 91.

sampling tube, Rec. VI, 674; VIII, 141.

sanitary—

control, Rec. VII, 71.

preparation, Rec. X, 492.

scale—

improved, Rec. IX, 887.

Richmond's improved, Rec. V, 817.

secretion, Rec. V, 361, 964.

secretion—

activity of, Rec. IV, 258.

as affected by alcohol, Rec. XI, 973; XII, 980.

fluctuation, Rec. III, 431.

physiology, Rec. III, 431.

regularity of, Rec. IV, 257.

studies, Rec. I, 41; X, 83, 282, 885; XI, 884.

variations, Rec. XII, 786.

serum, method of preparation, Rec. VII, 829.

setting. (*See* CREAM RAISING.)

sheep's—

analyses, Rec. IV, 515; V, 961; VI, 343; VIII, 441.

cheese made from, Rec. V, 957; IX, 796; X, 792.

dairying, Rec. V, 962.

digestibility, Rec. V, 957.

East Friesian, Rec. VII, 708; IX, 283.

studies, Rec. IV, 390, 514; IX, 283.

sickness, Rec. VIII, 335.

skim. (*See* SKIM MILK.)

slimy fermentation, Rec. V, 928, 1044.

soap from by-products, Rec. V, 1067.

soapy, cause, Rec. V, 349, 431, 971, 1044.

solidifying point, Rec. IX, 185.

solids—

apparatus for determination, Rec. XI, 313.

calculation, Rec. IV, 190; V, 647; IX, 888.

calculation by formulas, Rec. IV, 189, 190, 488, 750, 987; V, 647; X, 607.

determination, Rec. IV, 450, 584; XII, 611, 612.

loss in keeping, Rec. VI, 578.

machine for calculating, Rec. X, 413.

relation to yield of cheese, Rec. VIII, 726.

variation, Rec. XII, 389.

somatose, Rec. IX, 887.

sour—

acidity, Rec. XII, 180.

and peanut oil for calves, Rec. VII, 64.

determination of fat, Rec. III, 420.

Milk—Continued.

sour—continued.

determination of specific gravity, Rec. XII, 179.

handling in cheese making, Rec. XI, 585.

methods of analysis, Rec. III, 633; XII, 716.

preparation for analysis, Rec. XI, 211.

sampling, Rec. III, 420.

souring—

as related to phosphates and casein, Rec. V, 247.

carbonic acid for, Rec. V, 1047.

in the presence of preservatives, Rec. XII, 180.

spontaneous, Rec. VIII, 259; XI, 489, 789.

studies, Rec. VII, 429; IX, 284; X, 690.

sows'—

analyses, Rec. X, 783; XII, 84.

distribution of galactase, Rec. XI, 580.

fat content, Rec. IX, 282.

special studies on, Rec. V, 957.

specific gravity—

and solids, Rec. VIII, 721.

changes in, Rec. VI, 185, 935.

of serum as related to solids-not-fat, Rec. III, 832.

standard—

legal, change in, Rec. VI, 339.

of Michigan, Rec. II, 360.

St. Petersburg, Rec. IX, 795.

standards, Rec. IV, 194; VII, 529.

sterilization, Rec. IV, 519, 784; V, 258, 265, 440,

927, 1049, 1050; VI, 249, 1025; VII, 71, 338, 529,

990; VIII, 441; IX, 388, 494; X, 91, 792, 1096;

XI, 393; XII, 1082.

sterilization—

and pasteurization, Rec. VII, 529; IX, 494; X, 91.

by electricity, Rec. V, 1052.

peroxid of hydrogen, Rec. II, 532.

new method, Rec. X, 792.

sterilized—

and pasteurized, Rec. V, 361.

as food, Rec. VII, 803, 890.

bacteriological examination, Rec. VII, 897.

by Soxhlet method, quality, Rec. IV, 987.

chemical and clinical studies, Rec. III, 832.

digestibility, Rec. IV, 92, 311; VII, 161; XI, 882.

for children, Rec. VII, 71.

infants, Rec. V, 1050; VIII, 330.

investigations, Rec. VII, 161, 897.

micro-organisms in, Rec. VI, 249.

nutritive value, Rec. VIII, 719.

pasteurized and raw compared, Rec. XI, 87.

preservation in flasks, Rec. X, 91.

separation of fat, Rec. V, 130, 246; VII, 17.

v. uncooked, digestibility, Rec. III, 832.

sterilizer—

Flaack's, Rec. VI, 847.

for domestic use, Rec. XII, 785.

sterilizers, Rec. V, 440, 897, 1051.

sterilizing apparatus, Rec. VII, 529.

streptococci in, Rec. XII, 1080.

Milk—Continued.

stringy. (*See* MILK, ROPY.)
 substitute for calves, *Rec.* XI, 883; XII, 282.
 substitutes, patented, nutritive value, *Rec.* IX, 1078.

sugar—

action of enzymes, *Rec.* IV, 450, 584.
 content of, determination, *Rec.* IV, 987;
 V, 260; VII, 829; VIII, 200; IX, 225, 419,
 521; XII, 908, 1005.
 detection of cane sugar in, *Rec.* XII, 516.
 effect on intestinal putrefaction, *Rec.* IX,
 275.
 effect on protein, *Rec.* IX, 275.
 fermentation with *Oidium lactis*, *Rec.* V,
 919.
 formation as affected by pilocarpine and
 phloridzin, *Rec.* IV, 781.
 fuel value, *Rec.* III, 386.
 in milk of different breeds, *Rec.* V, 945.
 manufacture of, *Rec.* V, 562, 605, 1066;
 VII, 530.
 yeast, fermenting, *Rec.* V, 1097.

sulphur in, *Rec.* V, 260, 343, 949.

supplies—

and dairying, sanitary aspects, *Rec.* VIII,
 732.
 bacterial tests in sanitary supervision,
Rec. XI, 1083.
 of Pennsylvania, *Rec.* X, 887.

supply—

and tuberculosis, *Rec.* XI, 588.
 as affected by sewage, *Rec.* IX, 597.
 related to infant mortality, *Rec.* XI,
 588.
 contamination, *Rec.* X, 690.
 cooperative, *Rec.* IX, 589.
 from bacteriological standpoint, *Rec.* X,
 388.
 literature, *Rec.* V, 1063.
 of Berlin, *Rec.* VI, 250; IX, 291.
 Boston and other New England cities,
Rec. X, 488.
 Chicago, *Rec.* XI, 82.
 cities, *Rec.* X, 91; XI, 390; XII, 90.
 Copenhagen, *Rec.* VII, 992; XII, 185.
 European cities, *Rec.* X, 189.
 Geneva, supervision, *Rec.* X, 492.
 Glasgow, Scotland, *Rec.* XII, 1082.
 Helsingfors, bacteria content, *Rec.* XII,
 183, 879.
 Helsingfors, dirt in, *Rec.* XII, 184.
 Leipsic as affecting health of children,
Rec. V, 927.
 Naples, *Rec.* V, 927.
 New York, bacterial content, *Rec.* XII,
 1079.
 Padua, *Rec.* X, 791.
 Turin, purity, *Rec.* XI, 490.
 pure, notes, *Rec.* XII, 986.
 sanitary, *Rec.* IX, 185.
 supervision by sanitary police, *Rec.* V,
 1063.
 tables for calculating—
 fat in, Parsons's method, *Bul.* 2, II, 106.
 price of, *Rec.* II, 103, 295.
 tablets, *Rec.* X, 592.

Milk—Continued.

tainted, cause and prevention, *Rec.* IX, 990.
 taste and tolerance as affected by food and
 individuality of cows, *Rec.* XII, 784.
 test—

“acid butyrometric” method, *Rec.* IV, 616.
 acidimetric method, *Rec.* X, 90.
 Ahlborn-Babcock method, *Rec.* V, 349, 656.
 Babcock, *Rec.* II, 256, 441, 504, 565, 630;
 III, 132, 144, 150, 167, 199, 397, 765, 777,
 876; IV, 189, 194, 267, 437, 450, 575, 611,
 775, 944; V, 82, 84, 207, 322, 323, 349, 440,
 507, 511, 635, 645, 689; VI, 84, 249, 250, 271,
 474, 483, 1023; VII, 254, 256, 429, 992; VIII,
 347; XI, 284.
 Babcock method *v.* churn test, *Rec.* III,
 777.
 Babcock method *v.* gravimetric methods,
Rec. III, 44, 232.
 Babcock modification, *Rec.* XI, 389; XII,
 185.
 Babcock turbine apparatus, *Rec.* XI, 1083.
 Babcock, value in dairying, *Rec.* VI, 1025.
 Beimling method, *Rec.* II, 37, 377, 565;
 III, 44, 167, 876.
 bottles, apparatus for measuring acid into,
Rec. II, 565.
 bottles, inspection, *Rec.* XII, 1083.
 bottles, marking, *Rec.* III, 778.
 butyrometer, *Rec.* IV, 692.
 centrifugal method, *Rec.* V, 260; VI, 271;
 VII, 162.
 churn, *Rec.* III, 44; IV, 489.
 Cochran method, *Rec.* II, 120, 212, 294, 324;
 III, 44; IV, 267.
 comparison of methods, *Rec.* VIII, 199, 537;
 IX, 589.
 Demichel lactobutyrometer, *Rec.* IV, 316.
 eudiometric method, *Rec.* V, 824.
 Failyer and Willard method, *Bul.* 2, II,
 31; *Rec.* II, 120, 212.
 Gerber method, *Rec.* V, 260; VI, 271; VII,
 161, 162; VIII, 89; IX, 380, 991; X, 492.
 in factories, improvement, *Rec.* XI, 188.
 inspection law, *Rec.* XII, 288.
 lactanalyt, *Rec.* VIII, 89.
 lactocrite method, *Rec.* II, 324; III, 193;
 IV, 316.
 lactometer, *Rec.* IV, 750.
 lactoscope, *Rec.* II, 203.
 Leffman-Beam method, *Rec.* III, 832, 928,
 932; IV, 988.
 Lescoeur's “Séro-densimeter,” *Rec.* VII,
 462.
 Liebermann and Székely, *Rec.* IV, 776.
 Lister-Babcock method, *Rec.* IV, 988.
 Nahm method, *Rec.* V, 134; VI, 474; VII,
 162; X, 892.
 need of a simple, *Rec.* II, 52.
 of cheese value, *Rec.* X, 385.
 operators, *Rec.* XII, 289.
 Parson method, *Bul.* 2, II, 104; *Rec.* II,
 120, 212, 242.
 Patrick method, *Rec.* II, 52, 101, 120, 212,
 331, 565; III, 44, 167, 876.
 rapid, *Rec.* VII, 339.
 Schmid method, *Rec.* III, 577.

Milk—Continued.

test—continued.

Short method, *Bul.* 2, II, 28; *Rec.* II, 120, 203, 294; *III.* 44; *IV.* 267.

Smith method, *Bul.* 2, II, 31.

Soxhlet method, *Bul.* 2, II, 105; *Rec.* II, 324, 377; *III.* 45, 193; *V.* 102, 127.

Storch method, *Rec.* XI, 789.

Thorner method, *Rec.* V, 344, 734.

Weiss method, *Rec.* IV, 988.

testing, *Rec.* V, 440, 643; *VII.* 423; *VIII.* 933; *IX.* 690.

testing—

advantage of, *Rec.* VIII, 634.

and payment, *Rec.* VI, 250.

at cheese factories, *Rec.* IV, 390.

creameries, *Rec.* III, 928; *IV.* 611; *VII.* 254, 256, 338, 807; *VIII.* 531.

creameries and cheese factories, *Rec.* I, 320; *II.* 378, 565, 630.

by means of electricity, *Rec.* III, 421, 576.

by means of the churn, *Rec.* III, 44; *IV.* 489.

for nitrates, *Rec.* XI, 87.

tuberculosis, *Rec.* V, 1045.

indigo carmin for, *Rec.* X, 90.

methods, *Rec.* IX, 689.

prize of German Dairy Association, *Rec.* IV, 318.

tests—

and churn tests, compared, *Bul.* 2, II, 32.
at fairs and on farms, *Rec.* III, 777; *XI.* 689.

automatic pipette for, *Rec.* III, 152; *IV.* 751.

comparison, *Rec.* III, 45, 193, 720, 876, 932; *IV.* 267, 775, 983; *V.* 207, 965; *VI.* 15, 271, 336, 475; *X.* 748.

improvement, *Rec.* III, 366.

in feeding experiments, *Rec.* IV, 324.

inspection, *Rec.* XI, 482.

tolerance, effect of food on, *Rec.* XII, 784.

transmission of—

alcohol to, *Rec.* IV, 311.

copper from food to, *Rec.* XI, 587.

diseases by, *Rec.* IV, 785; *VII.* 529, 808; *VIII.* 439.

foot-and-mouth disease in, *Rec.* IV, 986; *V.* 973; *VI.* 81.

substances to, *Rec.* V, 972.

tartar emetic to, *Rec.* IV, 616.

tuberculosis by, *Rec.* V, 823, 1041; *VI.* 844; *XI.* 790.

treatment, in the stable, *Rec.* VI, 1024.

tubercle bacilli in—

destruction, *Rec.* XI, 999; *XII.* 1083.

detection, *Rec.* III, 928; *IV.* 214, 317; *V.* 1045; *VI.* 669; *VII.* 67, 95; *VIII.* 169, 929; *X.* 286, 387; *XI.* 588, 678, 679, 790, 887; *XII.* 90, 92, 290, 691, 987, 1080.

effect of high temperatures on, *Rec.* V, 927.

killing, *Rec.* XI, 386, 999.

retention of virulence, *Rec.* XI, 980.

thermal death point, *Rec.* XI, 1091; *XII.* 1080.

tuberculin tests, effect on, *Rec.* VIII, 553, 931, 933; *X.* 395.

Milk—Continued.

tuberculous, *Rec.* VIII, 258, 334; *IX.* 691; *X.* 896; *XI.* 592, 678.

tuberculous—

infectiousness, *Rec.* VIII, 258, 334, 928; *XI.* 1086.

investigations, *Rec.* VII, 970.

of Genoa, *Rec.* XI, 688.

(See also TUBERCULOSIS.)

turnip taste, *Rec.* XI, 81.

typhoid bacillus in, *Rec.* IV, 317; *X.* 995; *XI.* 786.

typhoid fever due to, *Rec.* VI, 84; *VII.* 529; *X.* 593.

unorganized ferments, *Rec.* X, 785.

utilization, *Rec.* IX, 91.

value—

as food, *Rec.* IX, 985.

for butter making, *Rec.* IV, 317.

variation, *Rec.* X, 781.

variation—

as served to creameries, *Rec.* II, 212.

served to customers, *Rec.* II, 286, 504.

in creamery values, *Rec.* II, 323.

quality, causes, *Rec.* XI, 1085.

vegetable, analyses, *Rec.* VIII, 536.

vessels, stopper for, *Rec.* V, 928.

vitality of bacteria in, *Rec.* XII, 1080.

volatile fatty acids in, from different kinds of animals, *Rec.* VI, 343.

waste in handling, *Rec.* XII, 384.

watered, effect of rennet on, *Rec.* XI, 581.

weighing, automatic, *Rec.* IX, 91.

yield. (See MILK PRODUCTION.)

Milking—

as affecting production, *Rec.* XII, 185.

effect of—

change of milker, *Rec.* II, 429; *XI.* 780; *XII.* 83, 288, 782.

time and method, *Rec.* II, 363; *VI.* 935; *VII.* 605; *IX.* 795.

fast and slow, *Rec.* II, 428; *VIII.* 1032.

fractional, *Rec.* I, 40; *II.* 66; *III.* 765; *IV.* 257, 442.

frequency of, *Rec.* II, 66; *III.* 474, 656; *V.* 228, 258, 642; *VI.* 580; *VII.* 152; *IX.* 684; *X.* 85; *XI.* 674; *XII.* 383, 590.

gland r. quarter, *Rec.* V, 643.

importance of thoroughness, *Bul.* 2, I, 108.

influence on bacteria content of milk, *Rec.* VIII, 169.

machine—

De Laval, *Rec.* VII, 992; *VIII.* 441.

"Thistle," *Rec.* VII, 70, 630; *VIII.* 436, 441; *IX.* 290.

v. hand, effect on quality of butter, *Rec.* X, 288.

machines—

description, *Rec.* VIII, 732, 834.

tests, *Rec.* VII, 70, 630; *IX.* 290, 589, 796; *X.* 592, 994.

methods, *Rec.* II, 429; *V.* 361, 1033; *VII.* 605.

one teat at a time, *Rec.* II, 428; *IX.* 278.

sanitary management, *Rec.* XI, 888.

studies, *Rec.* VI, 843, 935.

tubes v. hand milking, *Rec.* II, 429.

two or three times a day, *Rec.* III, 474; *VII.* 152; *XI.* 674.

Milkweed—

- analyses, Rec. III, 629.
- butterfly, notes, Rec. XII, 69, 264, 265.
- fiber, notes, Rec. VI, 207.
- notes, Rec. III, 308; IV, 653; V, 529.
- root system, Rec. IV, 46.

Mill—

- feed, analyses, Rec. VI, 153.
- for preparing oil-bearing seeds for fat determination, Rec. V, 1027.
- juices, abnormal polarizations, Rec. XII, 195.
- moth, notes, Rec. VIII, 909.
- products of wheat, Rec. VII, 336.
- sweepings, analyses, Rec. V, 164; VI, 287; XII, 378.
- waste, analyses, Rec. VIII, 485.

Millet— (See also CHETOCLOA, SETARIA, and PANICUM.)

African—

- culture experiments, Rec. IV, 725; V, 176; VI, 542, 984; VII, 122.
- notes, Bul. 2, II, 23.
- analyses, Rec. III, 16, 284, 296; VI, 403, 752, 1008; VII, 155, 296; IX, 873; XII, 378, 478.
- and corn for pigs, Rec. II, 676.
- Hungarian hay, analyses, Rec. IX, 786.
- millet by-products, Rec. VII, 985.
- soy-bean silage, digestibility, Rec. IX, 373.

Arizona, notes, Rec. X, 343.

as a forage plant, Rec. III, 51; V, 1074.

a trap crop for chinch bug, Rec. VI, 714.

barnyard—

- analyses, Rec. X, 946.
- digestibility, Rec. XI, 566.

broom-corn—

- analyses, Rec. X, 946; XII, 71.
- culture experiments, Rec. V, 178.
- notes, Rec. VI, 714; X, 629.

California, culture experiments, Rec. VI, 715.

castor pomace as a fertilizer for, Rec. IV, 133.

cat-tail—

- composition, Rec. V, 1082.
- for cows, steers, and goats, Rec. V, 1081.

chaparral, notes, Rec. X, 343.

common, analyses, Rec. VII, 155.

composition, Rec. XI, 1076.

cooperative experiments, Rec. X, 629.

culture, Rec. VI, 714.

culture experiments, Rec. I, 122; II, 24, 270, 336, 643; III, 17, 29, 85, 148, 696; IV, 346; V, 38; VI, 296, 405, 424, 542, 713; VII, 209, 397, 954; VIII, 125, 401, 885; XI, 43; XII, 1036.

digestibility, Rec. XI, 539.

digestion by hens, Rec. VIII, 718.

disease—

- notes, Rec. XI, 58.
- of horses, Rec. IX, 899.

fertilizer experiments, Bul. 2, I, 122.

fodder, analyses, Rec. IX, 786.

food value, Rec. X, 583.

for horses, Rec. IX, 174, 899; XI, 58.

French, culture experiments, Rec. VI, 542.

German—

- analyses, Bul. 2, II, 39; Rec. V, 64; VIII, 331.

Millet—Continued.

German—Continued.

- culture experiments, Rec. II, 643; III, 860; IV, 645, 725; VI, 542.
- digestibility, Bul. 2, I, 132.
- fertilizing constituents, Bul. 2, I, 133.
- notes, Rec. II, 271, IV, 825; V, 870; VI, 212, 714; X, 629.

germination tests, Bul. 2, I, 30.

glucosid, Rec. XI, 214.

golden—

- analyses, Rec. VII, 155.
- notes, Rec. V, 870.

grass—

- many-flowered, culture experiments, Rec. X, 245.
- notes, Rec. V, 577.
- of Australia, notes, Rec. XI, 220.

green—

- analyses, Rec. VI, 331.
- for pigs, Rec. III, 130.

hay—

- active principle, Rec. X, 794.
- analyses, Rec. IV, 175, 733.
- wild, analyses, Rec. VIII, 810.

hog, culture experiments, Rec. VII, 295.

Hungarian—

- analyses, Rec. V, 64; VII, 155.
- culture experiments, Rec. VIII, 970.
- notes, Bul. 2, I, 189; Rec. VII, 384; X, 629.

Indian—

- analyses, Rec. VI, 403.
- as a forage plant, Rec. III, 51.

insect injuries, Rec. X, 1061.

insects affecting, Rec. VIII, 507.

Italian—

- analyses, Rec. X, 946.
- culture experiments in India, Rec. V, 333.
- notes, Bul. 2, I, 189; Rec. II, 601; VI, 715; VIII, 306.

Japanese—

- analyses, Rec. X, 474; XI, 777.
- barnyard, notes, Rec. XII, 332, 539.
- broom corn, analyses, Rec. XI, 777.
- culture experiments, Rec. III, 699; VIII, 970.
- notes, Rec. VI, 715; XI, 833.

many-flowered—

- adaptation, Rec. III, 595.
- notes, Rec. VI, 721.

Missouri, notes, Rec. VI, 715.

notes, Rec. I, 212; V, 623; VI, 886, 985.

pearl—

- analyses, Rec. V, 64, 217; VIII, 331.
- culture experiments, Rec. I, 122, 254; IV, 645, 725; V, 176; VI, 542; VII, 121; X, 244.
- notes, Bul. 2, I, 189; Bul. 2, II, 23; Rec. II, 601; VI, 215, 715; VIII, 306; XI, 1037.

plaster as a fertilizer for, Rec. IV, 133.

Russian, varieties, Rec. XII, 42.

seed, analyses, Rec. VI, 405, 1008; VIII, 561, 623.

smut—

- hot-water treatment, Rec. VIII, 706.
- notes, Rec. VI, 714.

sprouting, Rec. VI, 715.

stover, notes, Rec. VIII, 331.

Millet—Continued.

Texas. (*See* TEXAS MILLET.)

varieties, Rec. II, 24, 156, 395; III, 82, 360, 869; V, 291, 625, 679; VI, 416, 419, 714, 984; VII, 121, 396, 580, 673; VIII, 400; IX, 341, 441; X, 238, 628, 629, 836, 846; XI, 43, 538, 631, 632; XII, 229, 641.

v. corn as a grain crop, Rec. III, 868.

water absorption of seed, Rec. XI, 1056.

wild, notes, Rec. X, 343.

Millets—

classification of varieties, Rec. XI, 443.

cultivated, notes, Rec. XII, 898.

Milling—

by-products, analyses, Rec. VI, 931.

experiment station, Rec. XI, 299.

Hungarian, report, Rec. IV, 675.

process, new, for maize and maize meal, Rec. VII, 155.

products, heat of combustion, Rec. XII, 873.

qualities of wheat, Rec. VII, 256, 953; VIII, 305, 402; IX, 834; XI, 242.

v. diffusion, Rec. VII, 719.

Milo maize—

adaptation, Rec. III, 596.

analyses, Rec. II, 340; III, 15; V, 217; VIII, 331; XI, 277.

culture experiments, Rec. II, 270, 643; III, 16, 82, 85, 696; IV, 251, 645, 725; VII, 120, 122, 209; VIII, 308; X, 340, 430.

digestibility, Rec. XII, 872.

notes, Bul. 2, I, 189; Rec. V, 623; VIII, 306; XII, 539.

silage, notes, Rec. V, 217.

stover, analyses, Rec. VIII, 331.

varieties, Rec. II, 149, 346; III, 85; IV, 411.

white—

analyses, Rec. V, 64; VIII, 688.

culture experiments, Rec. V, 176; VI, 215, 542, 984.

yellow—

analyses, Rec. V, 64; XII, 378.

culture, Rec. IV, 725.

culture experiments, Rec. I, 254; V, 39, 176; VI, 215, 542, 984; VII, 121; VIII, 400. notes, Bul. 2, II, 23.

yield per acre, Rec. III, 16.

Miltonia bleui, notes, Rec. XI, 352.*Milyas circinatus*, notes, Rec. III, 175; IV, 58.

Mimicry of insects, Rec. VI, 149; VII, 517; VIII, 419, 712.

Mimosa pudica, movement of leaves in darkness, Rec. VIII, 748.*Mimulatus lyratus*, notes, Rec. III, 598.

Mina, notes, Rec. XI, 426.

Mince-meat—

analyses, Rec. X, 281; XI, 769.

larvæ in, Rec. VI, 1003.

Mindarus—

abietinus on the white fir, Rec. XI, 564.

sp., notes, Rec. XI, 657.

Mineola—

indiginella, notes, Rec. V, 310; XI, 170.

vaccinii, notes, Rec. III, 871; X, 569.

Mineral—

acid in vinegar, detection, Rec. VII, 834.

constituents of—

muscular tissue, Rec. VIII, 149.

organs of human body, Rec. IX, 481.

Mineral—Continued.

constituents of—continued.

sound and diseased rye, Rec. VII, 512.

sugar cane, Rec. IX, 745.

deposits of North Louisiana, Rec. V, 283.

humates, importance in plant nutrition, Rec. X, 333.

ingredients of cheese, Rec. VII, 157.

matter—

assimilation by plants, Rec. V, 454; XI, 121, 216.

in food of domestic animals, Rec. VIII, 821.

manure leachings, Rec. V, 153.

soils, determination, Rec. XI, 131.

water, determination, Rec. X, 16.

of the bones and teeth, Rec. V, 654.

nutrients, physiological rôle, Rec. XI, 1008.

phosphate as a fertilizer, Rec. XI, 833.

phosphates, Rec. VIII, 389.

phosphates— (*See also* PHOSPHATES, MINERAL.)

analyses, Rec. V, 737; VI, 401, 797; VII, 668; VIII, 584, 877; IX, 436.

determination of iron and alumina in, Rec. V, 126; VI, 691.

determination of phosphoric acid in, Rec. V, 1009.

distinction between iron pyrites and oxid of iron in, Rec. V, 538.

new and rare, Rec. V, 651.

plant food in soils, determination, Rec. V, 924, 1013.

poisons, influence on lactic fermentation, Rec. V, 734.

production in Iowa, Rec. XII, 732.

products of the United States, statistics, Rec. XII, 698.

requirements of plants, Rec. VII, 23, 277.

residues in sprayed fruits, Rec. V, 793; VII, 969.

resources of—

Maryland, Rec. XII, 1098.

Wyoming, Rec. V, 567, 676.

salts—

decomposition by humus, Rec. XI, 623.

effect on fermentation of milk, Rec. V, 260, 1047.

effect on form and structure of plants, Rec. X, 1008.

effect on fungi, Rec. VII, 279.

effect on mechanical condition of soil, Rec. IX, 237.

springs, Swiss, bacteriological investigations, Rec. VIII, 298.

substances, effect on proteolytic diastase of malt, Rec. XII, 723, 916.

water, preservation and study, Rec. III, 927.

waters—

analyses, Bul. 2, I, 173, 187; Bul. 2, II, 38; Rec. II, 70; III, 412; IV, 787; VII, 376, 835; VIII, 377, 482, 574; IX, 1024; X, 194, 716; XI, 314; XII, 526.

determination of carbon dioxid in, Rec. VI, 273.

influence on metabolism of men, Rec. VIII, 521.

Mineraline for adulterating flour, Rec. XI, 278.

Minerals—

- analyses, *Bul.* 2, I, 22, 187; *Rec.* V, 217; VII, 273; VIII, 561; XI, 314.
- determination of—
 - carbonic acid, *Rec.* X, 717.
 - manganese, *Rec.* X, 605.
- effect on color of hydrangeas, *Rec.* IX, 247.
- examinations, *Rec.* XII, 623.

Mineralogical constituents of rocks, influence on vegetation, *Rec.* VI, 881.

Mining Diptera, *Rec.* X, 766.

Ministry of Agriculture, Russian, *Rec.* V, 827.

Minnesota—

- botanical studies, *Rec.* V, 659, 936.
- Good Roads Convention, proceedings, *Rec.* V, 1006.
- plant life, handbook of, *Rec.* XI, 1014.

Minnetonka Lake watershed, hydrology, *Rec.* XI, 221.

Mint hay, analyses, *Rec.* VII, 954.

Mint rust on cultivated balm, *Rec.* VI, 826.

Mirabilis, hybrid, *Rec.* XII, 613.

Mirage over Lake Michigan, *Rec.* XII, 1015.

Mirax sp., notes, *Rec.* IV, 852.

Mirobia and seiches, *Rec.* X, 1018; XI, 222.

Mississippi fungi, notes, *Rec.* VII, 371.

Mississippi River—

- flood plains, *Rec.* V, 1086.
- floods of, *Rec.* V, 1086; IX, 198, 816.
- rise, *Rec.* XII, 521.

Missouri—

- River, rise, *Rec.* XII, 521.
- watershed—
 - laws for acquiring titles to water, *Rec.* XI, 96.
 - water rights, *Rec.* XI, 95.

Mist, small whirling columns, *Rec.* XI, 620.

Mistletoe—

- disease of blackberry, *Rec.* VIII, 311.
- host plants, *Rec.* VIII, 749.
- notes, *Rec.* II, 419; XI, 368; XII, 421, 768.

Mistletoes affecting trees and shrubs, *Rec.* VII, 94.

Mite—

- California, notes, *Rec.* XII, 861.
- spotted, notes, *Rec.* III, 91, 241.

Mites—

- affecting domestic animals, *Rec.* XII, 664.
- injurious to plants, *Rec.* X, 169.
- in linseed meal, *Rec.* X, 769.
- notes, *Rec.* IX, 254; XII, 1067.
- of Portici, *Rec.* XI, 1065.

Mixed—

- border, effective associations in, *Rec.* VIII, 986.
- crops, field experiments, *Rec.* VII, 116.
- diet, digestibility, *Rec.* IX, 781.
- feed—
 - analyses, *Rec.* VIII, 1004; IX, 809; X, 276, 428, 474; XI, 279, 381, 971.
 - v. corn silage for butter production, *Rec.* X, 286.
- fertilizers, analyses, *Rec.* IX, 436; X, 337, 428; XI, 137, 528, 830.
- seeding of leguminous plants, *Rec.* VII, 201.

Mock orange, notes, *Rec.* III, 788; IV, 655.

Mocker nut, notes, *Rec.* III, 521.

Möckern Station—

- notes, *Rec.* IV, 451.
- report of botanical division, *Rec.* IV, 894.

Mockingbirds, stomach contents, *Rec.* VIII, 750.

Modena, Italy, Experiment Station, *Rec.* IV, 234.

Modification and variation, *Rec.* VIII, 290.

Modiola—

- as a forage plant, *Rec.* X, 147.
- culture experiments, *Rec.* X, 244.

Modiola decumbens, analyses, *Rec.* VIII, 714; X, 147, 244.

Mohavea breviflora, notes, *Rec.* VI, 114.

Mohr-Westphal balance for milk analysis, *Rec.* VI, 869; VII, 162.

Moisture—

- atmospheric, condensation, *Rec.* VII, 20.
- conservation in sandy soil, *Rec.* IX, 335.
- content of—
 - hemp and flax, as related to strength, *Rec.* V, 441, 726.
 - Wyoming soils, *Rec.* X, 29.

determination, *Rec.* VI, 189.

determination in invert sugar, *Rec.* X, 117.

distribution in the United States, *Rec.* XI, 30.

effect on—

- butter, *Rec.* XI, 584.
- germination, *Rec.* XI, 1056.

in air, effect on—

- East India rape seed, *Rec.* V, 1022.
- stomata, *Rec.* XI, 115.

in feeding stuffs, determination, *Rec.* II, 350.

honey, determination, *Rec.* VII, 558.

man when no muscular work is done, *Rec.* IX, 88.

sugar-house products, determination, *Rec.* VII, 558.

influence—

- of plant clover on, *Rec.* VI, 198.
- on germination of seeds, *Rec.* VI, 639.

relation to—

- cotton plant, *Rec.* I, 312.
- soils, *Rec.* VII, 753.

requirements of plants, *Rec.* X, 417.

retention in the soil, *Rec.* X, 523.

tables, *Rec.* X, 325, 419.

Molasses—

- adulteration, *Rec.* III, 814.
- analyses, *Bul.* 2, I, 37, 44; *Bul.* 2, II, 38; *Rec.* III, 390, 814; IV, 59; VI, 274; VII, 992; VIII, 442; X, 281; XI, 75, 770; XII, 79, 279, 280.

analysis, *Rec.* X, 96.

and distillery waste, effect on milk production, *Rec.* X, 588.

peat, feeding stuff from, *Rec.* VI, 1023.

sugar-beet residue for milch cows, *Rec.* X, 790.

as a feeding stuff, *Rec.* VI, 331, 468; VII, 248, 425, 520; VIII, 246, 519, 821, 1014; IX, 275; X, 281, 772; XI, 80.

a fertilizer, *Rec.* X, 533.

a food for animals, *Rec.* IV, 452.

bleaching, *Rec.* III, 390.

determination of—

- ash, *Rec.* XI, 213.
- sucrose, *Rec.* VII, 741.

Molasses—Continued.

feed—

- analyses, Rec. VIII, 246; IX, 266; X, 583; XI, 71.
- determination of sugar, Rec. XI, 311.
- for pigs, Rec. VIII, 519; IX, 273; X, 781.
- sugar content, Rec. VIII, 378.
- use, Rec. IX, 872.
- valuation, Rec. XI, 505.
- v. barley and corn for pigs, Rec. XI, 69.
- mixed grain for cows, Rec. IX, 984.

feeding—

- experiments, Rec. VII, 337.
- value of solids-not-sugar, Rec. XII, 679

feeds—

- determination of molasses content, Rec. XI, 311.
- valuation, Rec. XII, 677.

fertilizing constituents, Rec. X, 533.

for farm animals, Rec. VII, 63, 522; XI, 778, 999.

- cows, Rec. VII, 520; IX, 281, 874; XII, 288, 592.

cows with calf, Rec. IX, 876.

horses, Rec. VIII, 1014; XI, 74.

lambs, Rec. X, 379.

preservation of blood, Rec. VIII, 537.

pigs, Rec. X, 781.

sheep, Rec. VIII, 621; X, 772.

from beets and sugar cane, analysis, Rec. X, 96.

fuel value, Rec. XII, 1072.

Hungarian, composition of ash, Rec. IV, 518.

in food mixtures, Rec. VII, 155.

methods of analyses, Bul. 2, I, 44.

peat v. molasses bran for steers, Rec. X, 573.

poisoning swine, Rec. X, 794.

preparation of feeding stuff from, Rec. IV, 620.

pulp—

- analyses, Rec. IX, 267.
- as a feeding stuff, Rec. IX, 267.

refuse—

- analyses, Rec. XI, 873.
- as a fertilizer, Rec. XI, 1025.

sorghum, treatment with alcohol, Rec. IV, 81, 82.

spontaneous combustion, Rec. IX, 418.

sugar-beet, utilization, Rec. VII, 155.

utilization, Rec. VII, 155; VIII, 719.

v. cane sugar for cows, Rec. IX, 876.

Mold—

action on albumen, Rec. VI, 279.

black, notes, Rec. V, 60, 603.

destruction of amygdalin and helicin, Rec. X, 660.

ferments of starch, Rec. VIII, 960.

from tan-bark liquors, Rec. XII, 615.

fruit—

- of cherry, Rec. VI, 909; VII, 141.
- peach, Rec. VI, 909; VII, 141.
- plum, Rec. VI, 909; VII, 141.

fungi—

- composition, Rec. VIII, 867.
- preparation, Rec. VII, 563.
- studies, Rec. VII, 39, 658.
- temperature limits, Rec. VIII, 290.

Mold—Continued.

of peaches, Rec. VII, 220.

pineapples, Rec. IX, 568.

on surface and interior of cheese, Rec. V, 1062.

recent investigations, Rec. VI, 909.

red, notes, Rec. XII, 767.

spores in feeding stuffs, determination, Rec. VII, 518.

Molds—

as affected by—

light, Rec. X, 1013.

temperature and food, Rec. VIII, 671.

decomposition of fat by, Rec. VIII, 515.

effect on butter, Rec. XI, 977; XII, 882.

genetic relation to alcohol yeasts, Rec. XI, 125.

growth as affected by salt, Rec. XI, 683.

toxic properties, Rec. VIII, 524; IX, 392.

Mole—

brewer's, distribution and use, Rec. X, 25.

cricket—

- notes, Bul. 2, I, 99; Rec. VII, 315; VIII, 911.
- remedies, Rec. XI, 1065.

crickets—

as affected by drought, Rec. V, 348.

destruction, Rec. V, 822.

flea, notes, Rec. IX, 254.

hairy-tailed, distribution and use, Rec. X, 25.

plant, notes, Rec. V, 874.

shrew, distribution and use, Rec. X, 25.

star-nosed, distribution and use, Rec. X, 25.

Molecular concentration of culture media as affected by bacteria, Rec. XI, 715.

Moles—

and gophers—

automatic gun for, Rec. VI, 65.

notes, Rec. V, 161; VI, 389, 787.

economic relation to agriculture, Rec. X, 323.

food, Rec. VII, 842.

food habits, Rec. X, 324.

Molinia caerulea—

analyses, Rec. X, 1022.

ergot of, Rec. VII, 224.

Molkom, Sweden, Seed Control Station, report, Rec. VII, 690.

Mollugo verticillata—

notes, Rec. III, 598.

root system, Rec. IV, 46.

Mollusca of Franklin County, Ohio, catalogue, Rec. II, 253.

Mollusks—

composition, Rec. X, 481.

of Death Valley, California, Rec. V, 90.

Molossus sp., notes, Rec. II, 258.*Molothrus ater*, notes, Bul. 2, II, 93.

Molts of insects, conditions affecting, Rec. IX, 963.

Moluccella laevis, notes, Rec. X, 1049.

Molybdate of ammonia for precipitation of phosphates and arsenates, Rec. IV, 313.

Molybdenum—

in plants, Rec. XII, 113.

separation from tungsten, Rec. XI, 813.

Molybdic—

acid and chromate of potassium, reaction between, Rec. VI, 190.

method for phosphoric acid, Rec. IV, 313, 387, 584, 612; VII, 88, 552.

residues, utilization, Rec. VI, 188.

solution as a reagent, Rec. VII, 652.

- Momordica charantica*, notes, Rec. VI, 217.
 Mona Island guano—
 analyses, Rec. I, 80; II, 581.
 for potatoes, Rec. II, 485; III, 159.
 wheat, Rec. IV, 27.
 Monarch corn and oat feed, analyses, Rec. XI, 279.
Monardia sp., dimorphism, Rec. XI, 870.
Monarthrum—
 fasciatum, notes, Rec. VIII, 905; IX, 670; X, 168.
 mali, notes, Rec. IX, 670.
 Mongoose, notes, Rec. XI, 426.
 Monilia—
 blight, notes, Rec. XI, 465.
 disease of fruit trees, Rec. X, 763.
 diseases—
 notes, Rec. XII, 965.
 of plants, Rec. XI, 949.
 variations due to culture media, Rec. XI, 949.
Monilia—
 finicola on mushrooms, Rec. VI, 234, 311.
 fructigena— See also CHERRY, BROWN ROT, PEACH and PLUM ROT.)
 germination tests, Rec. IV, 52.
 notes, Rec. III, 161, 172, 327, 810, 860, 871; IV, 658, 837; V, 591, 629, 876; VI, 546; VII, 138, 141; VIII, 898, 999; IX, 457, 753; X, 648, 763, 1057; XI, 465, 466, 757; XII, 963.
 on quinces, Rec. IV, 658.
 treatment, Rec. I, 294; III, 846, 860, 878; VIII, 996; XII, 962.
 linhartiana, notes, Rec. V, 530; XII, 255.
 variabilis, notes, Rec. X, 971.
Monilochates infuscans, notes, Rec. II, 416; VI, 987; VII, 684.
 Monobarium phosphate, decomposition, Rec. X, 411.
 Monocalcium phosphate—
 as a preservative for manure, Rec. V, 330.
 decomposition, Rec. X, 411.
Monocesta coryli, notes, Rec. VIII, 505.
 Monocotyledonous saprophytes, notes, Rec. VII, 466.
 Monocotyledons—
 and dicotyledons, divergence, Rec. VIII, 204.
 grafting, Rec. XI, 910.
 nuclear division, Rec. VIII, 957.
 origin of vascular tissues in root tip, Rec. X, 223.
 secondary growth of fibrovascular bundles, Rec. X, 321.
Monocrepidius—
 bellus, notes, Rec. X, 1061.
 vespertinus—
 attacking beans, Rec. VII, 699.
 notes, Rec. IX, 664; XI, 952.
 Monograph—
 botanical, prize for, Rec. V, 825.
 of Phymatidæ, Rec. X, 272.
 the genus *Delphinium*, Rec. VII, 18.
 the genus *Galeopsis*, Rec. V, 648.
Monohammus titillator, notes, Rec. X, 458.
 Mono-iodo-succinic acid, study, Rec. III, 925.
 Mono-magnesium phosphate, studies, Rec. III, 927.
Monolepta—
 diversa, notes, Rec. IX, 262.
 roseæ, notes, Rec. X, 769.
 Monomethylene-saccharic acid, Rec. VIII, 285.
Monomorium— (See also ANTS.)
 minutum, notes, Rec. IX, 65.
 pharaonis, notes, Rec. IX, 65; X, 654.
Mononychus vulpeculus, notes, Rec. VI, 652.
Monopadnus—
 bardus, notes, Bul. 2, II, 33; Rec. II, 116, 664; V, 206.
 ignota, notes, Rec. VI, 316.
 rubi, notes, Rec. XI, 63.
Monoptilota nubilella, notes, Rec. XII, 361.
 Monosaccharids, decomposition by alkalies, Rec. VIII, 285.
 Monosodium phosphate, precipitation by magnesia mixture, Rec. XI, 108.
Monostegia—
 ignota, notes, Rec. II, 179; IV, 415; VI, 316.
 (See also EMPHYTUS MACULATUS.)
 roseæ. (See ROSE SLUG.)
Monotropa hypopitys, glucosid in, Rec. VIII, 29.
Monoxia guttulata on sugar beets, Rec. III, 453; IV, 203.
 Monsoon—
 rains, Rec. XII, 831.
 rains—
 forecasting, Rec. VII, 474.
 relationship to Nile floods, Rec. XII, 424.
 region, Indian, upper air currents, Rec. VIII, 676.
 Monsoons in India, Rec. XII, 521.
 Monstrosities—
 in rye, Rec. XI, 540.
 principles of culture, Rec. XI, 546.
 Monstrosity of a calf, due to injury to mother, Rec. III, 795.
Montagnella maxima, n. sp., notes, Rec. XI, 469.
 Montanoa, revision of genus, Rec. XI, 121.
 Mont Aigonal Observatory, Rec. VII, 661.
 Mont Blanc Observatory, ascension to, Rec. VII, 661.
 Monthly Weather Review—
 French edition, Rec. XII, 831.
 use by teachers, Rec. XII, 1016.
 Monthlrey bronzed pumpkins, Rec. V, 1099.
 Montpellier, Wine Culture Congress at, report, Rec. V, 824.
 Moon—
 action on the atmosphere, Rec. VIII, 31.
 and the aurora, Rec. X, 124.
 blindness of domestic animals, Rec. V, 79.
 Doctor Waltermath's, Rec. X, 124.
 effect on oscillations of atmosphere, Rec. X, 125.
 effects of synodic and tropic revolutions, Rec. XII, 317.
 influence on—
 rainfall, Rec. IV, 876; VI, 700.
 the weather, Rec. IV, 803.
 phases as related to storms, Rec. V, 819.
 relation to weather, Rec. X, 1018.
 Moonseed, notes, Rec. III, 521; IV, 656.

Moonshine and frost, Rec. X, 124, 326.

Moor—

culture, Rec. V, 730.

culture—

in Bavaria, Rec. V, 924; VII, 633; VIII, 757; IX, 1041.

Denmark, Rec. VII, 663; XII, 222.

literature, Rec. X, 229.

mud in, Rec. VII, 290.

studies, Rec. VI, 283.

lands of Prussia, improvement, Rec. XI, 442.
plants, phosphorus and sulphur in, Rec. IX, 824.

soils—

as affected by culture and manuring,
Rec. X, 932.

affected by sand, Rec. X, 940.

culture, Rec. VII, 486.

drainage, Rec. X, 941.

experiments with phosphates, Rec. X, 935.

ferrous carbonate content, Rec. X, 934.

fertilizer and culture experiments, Rec. IV, 222.

fertilizer experiments, Rec. X, 940, 941.

fertilizing, Rec. VII, 757.

field experiments, Rec. X, 934.

grasses for, Rec. XI, 43.

horseshoe for, Rec. VII, 431.

humus acids, Rec. IX, 32.

injurious to vegetation, Rec. IV, 517.

investigations, Rec. VI, 283.

of Dordogne, France, reclamation, Rec. VII, 486.

Westphalia, Rec. XI, 134.

phosphoric acid content, Rec. VII, 99, 293;
X, 1024,

studies, Rec. VIII, 537; X, 931, 932, 1022.

substances injurious to vegetation in,
Rec. IV, 517.

use of sand, Rec. IX, 537.

water content, Rec. X, 942.

waters—

determination of acidity, Rec. XI, 312.

studies, Rec. X, 1031.

Moors—

and moor culture in Bavaria, Rec. V, 924.

soil inoculation for leguminous plants, Rec. V, 649.

Morbus maculosus, treatment, Rec. XI, 93; XII, 890.

Morchella esculenta, notes, Rec. VI, 728; X, 551.

Morello stocks for cherries, Rec. II, 218.

Morels and their allies, Rec. VII, 656.

Morning-glory—

notes, Rec. III, 893; VI, 732; XI, 651.

wild—

eradication, Rec. XI, 749.

notes, Rec. XII, 420.

Morphine—

determination, Rec. XII, 1007.

effect on horses, Rec. XII, 887.

Morphology—

and anatomy of—

leaves and shoots deformed by *Exoascæ*,
Rec. VI, 559.

monocot seedlings, Rec. VII, 748.

sprout deformations, Rec. VI, 436.

Morphology—Continued.

and biology of—

the mold fungi, Rec. VII, 39.

unicellular algæ, Rec. X, 121.

and botany of Myxomycetes, Rec. VII, 838.

and classification of Pauropoda, Rec. IX, 467.

physiology of Spermaphytes, Rec. IX, 526.

of acetic-acid bacteria, Rec. IX, 627.

alcoholic ferment, Rec. V, 435; XI, 125.

appendices of the orthopteran midgut, Rec. VIII, 910.

bacteria, Rec. VII, 928.

Blastomycetes, Rec. IX, 362, 812.

budding fungi, Rec. VII, 748.

cell nucleus in sprouting seed, Rec. V, 254.

conifer cones, Rec. VIII, 471.

Cyperaceæ, Rec. IX, 526, 812.

Diplopoda, Rec. IX, 467.

grafts, Rec. V, 818, 923, 1089.

Gramineæ, Rec. IX, 526.

grasses, Rec. VII, 372.

hepatic elaters, Rec. V, 936.

nitrification organisms, Rec. IV, 613; VII, 277.

Penicillium luteum, Rec. V, 539.

pollens, Rec. X, 416.

Ranunculaceæ, Rec. IX, 329.

roots, Rec. IX, 526.

Simondsia paradoxa, Rec. IX, 467.

Umbelliferae, Rec. VI, 18; IX, 329.

yeasts, Rec. VIII, 473; X, 322.

plant, problems in, Rec. VII, 277.

Morrenia brachystephana, notes, Rec. V, 965.

Morrill, Senator, services in establishing land-grant colleges, Rec. X, 501.

Morrow, Prof. G. E., services to agricultural education, Rec. XI, 1002.

Mortar-cap, rubber, Rec. XII, 109.

Mortierella—

sp., structure of fundamental protoplasm,
Rec. VIII, 566.

van tieghemi, notes, Rec. XI, 423.

Morus— (See also MULBERRIES.)

alba, notes, Rec. III, 597; IV, 552; VIII, 314.

alba multicaulis, notes, Rec. IV, 553.

alba tatarica, notes, Rec. IV, 552, 655; XII, 153.

alba venosa, notes, Rec. IV, 553.

japonica, notes, Rec. III, 597; IV, 553.

multicaulis, notes, Rec. III, 597.

nigra, notes, Rec. III, 597; IV, 553.

rubra, notes, Rec. III, 521, 597; IV, 553.

Mosaic disease of tobacco, Rec. VI, 234, 557; X, 1058; XI, 167, 358, 359, 756; XII, 216, 217, 572.

Moscow, Russia, Agricultural Institute, report,
Rec. XI, 296.

Mosquito—

banded, of Bengal, notes, Rec. VII, 594.

bites—

as a cause of insanity, Rec. III, 812.

immunity, Rec. VIII, 911.

blight, notes, Rec. VII, 593, 594.

experiment, Rec. V, 515.

larvæ as internal parasites, Rec. III, 813.

Mosquitoes—

and gnats, Rec. IX, 253.

breeding, Rec. IX, 152.

destruction in cities, Rec. XII, 361.

Mosquitoes—Continued

- geographical distribution and life history, Rec. VI, 653.
- hibernation, Rec. III, 812.
- identification of North American species, Rec. XII, 68.
- in England, Rec. V, 514.
- relation to malarial fever, Rec. XII, 293, 663.
- kerosene for, Rec. IV, 372; VI, 440, 652; X, 766.
- life history and remedies, Rec. IV, 84, 372, 668.
- new species, Rec. VII, 699.
- notes, Rec. IX, 775; XI, 272, 957; XII, 790.
- of the United States, notes, Rec. XII, 768.
- remedies, Rec. VIII, 64, 68; IX, 62; X, 766; XI, 557; XII, 969.
- treatise, Rec. XII, 467.

Moss—

- and lichens on trees, treatment, Rec. VIII, 706.
- eradication in pastures, Rec. XII, 251.
- hybrid, Rec. VI, 487.
- in cranberry bogs, Rec. V, 800.
- meadows and lawns, iron sulphate for, Rec. IV, 963.
- insects wintering in, Rec. VIII, 808.
- litter, analyses, Rec. VIII, 880; X, 835.
- on citrus fruits, notes, Rec. XII, 463.
- lawns and trees, removal, Rec. VI, 223.
- refuse, analysis, Rec. V, 861.
- reindeer—
 - analyses, Rec. II, 495; IV, 972.
 - for cows, Rec. IX, 689; X, 492.

Mosses—

- analyses, Rec. IV, 334.
- as feeding stuffs, Rec. IV, 334.

Moth—

- bee. (*See* BEE MOTH.)
- bee hawk, notes, Rec. XII, 465.
- borer of sugar cane, Rec. VI, 567; XII, 661.
- catching plant—
 - from New Zealand, Rec. VI, 740.
 - notes, Rec. VII, 93.
- mottled umber, Rec. VI, 442; VII, 307.
- mullein—
 - notes, Rec. IV, 47; VI, 822.
 - root system, Rec. IV, 46, 77.
- traps, construction, Rec. II, 318.
- winter, Rec. VII, 307.

Motherwort, notes, Rec. V, 399.

Moths—

- and butterflies, Rec. VIII, 808.
- and butterflies—
 - British and European, Rec. VII, 699.
 - color and color patterns, Rec. VIII, 910.
- attacking fruits, Rec. XI, 170.
- beeswax, notes, Rec. VI, 149; XI, 266.
- clothes—
 - notes, Rec. I, 224; VI, 1007; IX, 64; XI, 955.
 - remedies, Rec. VIII, 241; X, 655.
- harmful and harmless, Rec. IX, 160.
- migration, Rec. XI, 765.
- night-flying, from Kentucky, Rec. VII, 882.

Motive powers—

- for use in agriculture, Rec. IV, 695.
- on the farm, Rec. IX, 396.

Mottled cup moth, Rec. IX, 260.

"Mottled top" of tobacco, notes, Rec. XI, 755.

Mount Tamalpais observations, value, Rec. XI, 126.

Mountain ash—

- American, notes, Rec. III, 788; IV, 655.
- as host of Gymnosporangium, Rec. II, 712.
- notes, Rec. IV, 654, 655; VII, 134; VIII, 604.
- rust, Rec. V, 450.
- weeping, notes, Rec. IV, 655.

Mountain—

- fleece, notes, Rec. IV, 654.
- forests, restoration, Rec. XI, 455.
- laurel, notes, Rec. IV, 655; VIII, 892.
- lily, notes, Rec. III, 52.
- mahogany, notes, Rec. III, 522.
- maple, notes, Rec. III, 521.
- meadow grass—
 - analyses, Rec. IV, 769, 770.
 - value for forage in Sweden, Rec. IV, 771.
- meadows, grasses, notes, Rec. I, 316.
- peaks, minimum temperatures, Rec. XI, 621.
- pine, dwarf, notes, Rec. II, 143.
- pine, notes, Rec. III, 788.
- rice, black, analyses, Rec. VI, 403.
- sheep, new, from British Northwest Territory, Rec. IX, 1030.

stations in—

- Australia, Rec. X, 325.
- North Carolina, Rec. IX, 814.
- storms, Rec. IX, 531; X, 124.

Mountains, reforestation, Rec. X, 53.

Mourning cloak butterfly. (*See* VANESSA ANTI-OPA.)

Mouse—

- coccidium from, Rec. VIII, 159.
- destroying bacteria, notes, Rec. XI, 393.
- diseases, pathological anatomy, Rec. XI, 393.
- flea, notes, Rec. IX, 254.
- red-backed, n. sp., notes, Rec. III, 184.
- typhus bacillus for destroying mice, Rec. XI, 1087.
- white-footed, from British Columbia, Rec. IX, 1031.

Mouth—

- cryptogamic flora, Rec. VII, 278.
- part of insects, Rec. VII, 174.

Mowers, draft, Rec. XI, 96.

Mowing—

- lands, condition, Rec. II, 749; IV, 957.
- machines, draft, Rec. III, 179.

Mucic acid, reduction, Rec. III, 925.

Mucilage—

- canals of Marattiaceæ, Rec. VII, 277.
- cells in *Taxus baccata*, Rec. V, 923.
- in plants, classification, Rec. VI, 873; VII, 644.
- layer of flaxseed, Rec. V, 254.

Mucin in plants, Rec. VI, 386.

Muck—

- analyses, Bul. 2, I, 22, 182, 190; Bul. 2, II, 46; Rec. I, 25, 198; II, 5, 481, 654, 666, 744; III, 146, 292, 299, 315, 357, 471, 515, 764; IV, 26, 27, 465, 903; V, 164, 165, 291, 727, 775, 777; VI, 202, 287, 401, 402, 522, 882; VII, 111, 196, 294, 573, 669, 854; VIII, 41, 300, 389, 563, 767, 880, 970; IX, 225, 336, 339, 436, 538, 825, 929; X, 428, 834; XI, 813, 831, 1026; XII, 225, 226, 840, 907, 931, 933.
- black, analyses, Rec. II, 5.

Muck—Continued.

- cane mills filter press, analyses, Rec. XII, 39.
- fertilizing value, Bul. 2, II, 46; Rec. I, 198.
- land, fertilizer experiments, Rec. XI, 1637; XII, 620.
- methods of composting, Bul. 2, II, 46; Rec. I, 198.
- Michigan, notes, Rec. VI, 623.
- soils, Rec. X, 397.
- soils, improvement, Rec. IX, 821.
- swamp, analyses, Rec. V, 775, 777; XII, 531.
- v. manure for potatoes, Rec. II, 596.

Mucoid substance in egg albumen, Rec. V, 727.

Mucor and Trichoderma, Rec. VII, 656.

Mucor—

mucedo—

- destroying beechnuts, Rec. IX, 362.
- effect in ripening cheese, Rec. XI, 787.
- for producing cerebritis, Rec. V, 203.

proliferus, n. sp., notes, Rec. VIII, 470.

racemosus—

- in combating locusts, Rec. XI, 659; XII, 273.
- red coloring material in, Rec. IX, 812.

stolonifer—

- analyses, Rec. VIII, 867.
- notes, Rec. XI, 164.

Mucorineæ, structure, Rec. IX, 329.

Mucors—

- development, Rec. VI, 968.
- sexual reproduction, Rec. V, 923.

Mucronoporus andersoni, notes, Rec. II, 303.

Mucronoporus, notes, Rec. I, 169.

Mucuna—*atropurpurea*—

- analysis, Rec. X, 678.
- notes, Rec. XII, 1043.

gigantea, notes, Rec. XII, 1043.

horrida, notes, Rec. XII, 1043.

monosperma, notes, Rec. XII, 1043.

nivea, notes, Rec. XII, 1043.

pruriens, notes, Rec. XII, 1043.

utilis, notes, Rec. XI, 341; XII, 1043.

Mucus in human feces, Rec. X, 281.

Mud—

- analyses, Rec. II, 5, 481, 504; III, 357; IV, 26, 436; VI, 274, 402; VIII, 880.
- importance in moor culture, Rec. VII, 290.
- lake, fertilizing value, Rec. IX, 543.
- marsh, analyses, Rec. III, 515.

"Mud crab," analyses, Rec. I, 80; II, 581.

Mud lark, common, Rec. X, 93.

Muhlenbergia—

grass, spiked, analyses, Rec. VI, 403.

grasses, culture experiments, Rec. I, 121.

Muhlenbergia—

arenicola, notes, Rec. X, 343.

buckleyana, notes, Rec. III, 548.

calamagrostidea, notes, Rec. IV, 498.

californica, notes, Rec. IV, 498.

debilis, notes, Rec. IV, 498.

depauperata, notes, Rec. III, 548.

diffusa, analyses, Bul. 2, I, 108.

distichophylla, notes, Rec. II, 259; III, 280.

dumosa, notes, Rec. IV, 498.

flavisetia, notes, Rec. IX, 328.

Muhlenbergia—Continued.

glomerata, notes, Rec. II, 321; VII, 384.

gracilis, notes, Rec. II, 259, 321.

gracillima, notes, Rec. II, 321.

mexicana—

analyses, Rec. VIII, 810.

notes, Rec. VI, 403; VII, 384.

neomexicana, notes, Rec. III, 548.

palustris, notes, Rec. X, 516.

parishii, notes, Rec. IV, 498.

racemosa, notes, Rec. V, 990; VI, 403; X, 343.

schaffneri, notes, Rec. III, 548.

sylvatica, notes, Rec. VI, 403.

tenuiflora, notes, Rec. X, 343.

texana, notes, Rec. VIII, 306.

wrightii, notes, Rec. II, 321.

Mulberries—

American, varieties, Rec. IV, 552.

classification of varieties, Rec. IV, 552.

culture, Rec. VI, 728.

notes, Rec. V, 586; IX, 353; X, 49; XII, 945.

Russian, notes, Rec. XII, 153.

varieties, Bul. 2, II, 91; Rec. I, 229; II, 355;

III, 701; IV, 556; V, 190, 299; VI, 55, 424, 820;

VIII, 134, 889.

varieties for silk worms, Rec. IV, 783; VI, 64.

Mulberry—

bacterial disease, Rec. X, 456, 865.

borer, notes, Rec. XI, 272.

culture in Russia, Rec. XI, 548.

disease, Rec. VI, 830; VIII, 318, 995; IX, 362.

dwarfs, and peach yellows, Rec. IX, 362.

Japanese, notes, Rec. IV, 553.

leaf curl, notes, Rec. XII, 1053.

leaves sprayed with Bordeaux mixture, effect on silkworms, Rec. VI, 442.

new disease, Rec. V, 348, 424.

paper, notes, Rec. X, 254.

red, notes, Rec. III, 521; IV, 553.

Russian—

as wind-breaks, Rec. XI, 550.

notes, Rec. IV, 552, 655.

tree—

culture for the silkworm, Rec. V, 652.

parasitic diseases, Rec. IX, 149.

scale insect, Rec. VI, 649.

studies, Rec. IX, 525.

trees—

bacteriosis, Rec. VIII, 801.

distribution, Rec. III, 597.

in Japan, disease, Rec. X, 365.

necrosis, Rec. X, 859.

root disease, Rec. X, 763, 865.

undetermined fungus on, Rec. V, 424.

white, notes, Rec. IV, 552.

Mulches—

and mulch materials, nitrifying microbes in, Rec. II, 375.

effect on soil moisture, Bul. 2, I, 149; Rec. VI, 859; XI, 522, 649.

effectiveness, Rec. XI, 521.

for galled lands, Rec. II, 375.

Mulching—

and top-dressing, Rec. VII, 869.

corn, Rec. V, 36, 777.

cucumbers, Rec. VIII, 886.

Mulching—Continued.

effect on—

blossoming of fruit trees, Rec. IX, 841.
soil moisture and temperature, Rec. XI, 649.

eggplants, Rec. VIII, 886, 895.

experiments, Rec. VIII, 694.

for prevention of potato rot, Rec. VIII, 225.

fruits, Rec. V, 583; VI, 638.

notes, Rec. VI, 251.

orchard fruits with seaweed, Rec. XI, 548.

peppers, Rec. VIII, 886.

potatoes, Rec. IV, 818; VI, 985; VII, 860.

strawberries, Rec. V, 300, 584; IX, 949.

vegetables, Rec. IX, 645.

v. cultivation for potatoes, Rec. V, 184.

Mule breeding and growing, Rec. V, 608.

Mules—

and horses, colic, Rec. V, 78.

colic, treatment, Rec. VIII, 84.

diseases, Rec. IV, 75.

distemper, causes and treatment, Rec. VIII, 625.

feeding experiments, Rec. I, 233; III, 167, 876; XI, 1069.

foot evil in, Rec. IV, 75.

glanders, treatment, Rec. VII, 252.

health as affected by improper feeding, Rec. III, 152.

lameness, treatment, Rec. VII, 65; VIII, 159.

milk—

analyses, Rec. V, 961.

digestibility, Rec. V, 957.

number and value in the United States, Rec. II, 518; V, 729.

skin tumors, studies, Rec. VIII, 928.

staggers in, Rec. III, 42.

statistics, Rec. III, 201.

tuberculosis, Rec. XI, 393.

Mulgedium pulchellum, notes, Rec. VIII, 703.

Mullein—

notes, Rec. II, 655; V, 398, 497, 529.

root system, Rec. IV, 46.

woolly, Rec. IX, 1024; X, 359.

Mummy field peas, culture experiments, Rec. VIII, 400.

Mungo bean, notes, Rec. V, 820, 908.

Munich, Germany, laboratory of applied chemistry at the university, Rec. VIII, 863.

Munro grass, notes, Rec. IV, 248.

Munroa squarrosa, notes, Rec. II, 321; III, 548; VI, 403.

Münster, Germany, Experiment Station, report, Rec. III, 263, 656.

Murgantia histrionica. (See HARLEQUIN CABBAGE BUG.)

Muriate of potash—

action on lime of the soil, Rec. VIII, 114.

analyses, Rec. II, 101, 142, 154, 232, 481, 581; III, 6, 162, 168, 299, 444, 471, 530, 536, 764; IV, 25, 26, 27, 465, 787, 902; V, 164, 288, 290, 487, 572, 737, 777, 861, 1103; VI, 287, 396, 401, 402, 522, 631, 797; VII, 109, 111, 195, 294, 669, 670, 757, 854, 940; VIII, 389, 392, 561, 563, 584, 767, 768, 877, 966; IX, 336, 436, 538, 636, 825, 919, 934, 939; X, 36, 230, 428, 716, 919, 1031; XI, 39, 137, 528, 719, 830, 917, 1026; XII, 129, 131, 626, 717, 840, 907, 931, 933.

Muriate of potash—Continued.

and nitrate of soda v. nitrate of potash, Rec. XII, 735.

cost of potash from, Bul. 2, I, 39.

effect on starch formation in potatoes, Rec. III, 869.

for barley, Rec. V, 704.

clover, Rec. V, 292.

corn, Rec. V, 778, 780, 862.

corn and potatoes, Rec. V, 573.

cowpeas, Rec. V, 779, 780; VI, 802.

crimson clover, Rec. VIII, 490.

grass, Rec. V, 575.

grasses and pasture lands, Rec. V, 707.

oats, Rec. V, 575, 579.

peach trees, Rec. IV, 40; V, 397.

potatoes, Rec. II, 325; III, 34.

potato scab, Rec. III, 771.

ruta-bagas, Rec. V, 706.

soy beans, Rec. V, 779, 780.

sweet potatoes, Rec. V, 394, 780.

tomatoes, Rec. II, 367; V, 393.

wheat, Rec. V, 495, 705.

wireworms, Rec. III, 449.

harmful effects, Rec. IX, 799.

on chalk soils, Rec. V, 708.

v. sulphate of potash—

as a fertilizer, Rec. VI, 401.

for clover, Rec. IX, 340.

cotton, Rec. IX, 127.

grapes, Rec. III, 24.

hemp, Rec. II, 146.

potatoes, Rec. V, 291; VIII, 399; IX, 45.

tobacco, Rec. IV, 821.

various crops, Rec. X, 126; XII, 227.

with barnyard manure for corn, Rec. III, 867; V, 292.

Muridæ in Idaho, Rec. III, 184.

Murky ground beetle, notes, Rec. IV, 58; V, 499.

Murren, notes, Rec. II, 318.

Musa— (See also BANANA.)*cavendishii*, notes, Rec. IV, 315, 507; VI, 219.*discolor*, notes, Rec. VI, 219.*ensete*, wintering, Rec. V, 652.*fehii*, notes, Rec. VI, 219.*maculata*, notes, Rec. VI, 219.*paradisiaca*, analyses, Rec. XII, 1076.*sapientum*, notes, Rec. VI, 219.

sp., notes, Rec. VI, 219.

Musca, bibliography, Rec. XII, 867.*Musca domestica*, notes, Rec. III, 46, 79 2; VIII, 909; IX, 63.

Muscardine disease of chinch bugs, Rec. VII, 226; VIII, 268, 557, 998.

Muscariæ, parasitic, Rec. IX, 472.

Muscidæ—

acalyptrate, larval habits, Rec. IV, 852.

notes, Rec. XI, 272.

of France, Rec. VIII, 712.

parasitic, from British India, Rec. VII, 594.

Muscinae of North America, studies, Rec. XI, 1065.

Muscle—

brain and diet treatise, Rec. XI, 882.

exhausted, effect of nutrients in restoring, Rec. XI, 778.

exhaustion as affected by sugar, Rec. XI, 67.

plasma, protein compounds, Rec. VIII, 619.

Muscles—

- fat content, Rec. IX, 681.
- glycogen in, determination, Rec. VII, 90.
- mechanical work, Rec. IX, 175.
- of ants, wasps, and bees, Rec. VII, 517.
- products of action, Rec. IV, 873.
- protein, Rec. IX, 808.

Muscular—

- action—
 - chemical processes involved, Rec. VIII, 156.
 - physiology, Rec. VIII, 821.
- contraction, studies, Rec. VI, 931.
- energy—
 - and protein of the food, Rec. VIII, 150.
 - and respiration, Rec. VIII, 151.
 - as affected by consumption of sugar, Rec. IX, 175.
 - expenditure, Rec. VIII, 156.
 - expenditure by bicycle rider, Rec. IX, 1079.
 - in fasting man, Rec. VIII, 156.
 - internal expenditure, Rec. VIII, 156.
 - production, Rec. VII, 535.
 - source, Rec. IX, 681; X, 183.

tissue—

- mineral constituents, Rec. VIII, 149.
- phosphorus content as affected by work, Rec. XI, 778.

work—

- as affected by alcohol, Rec. X, 81; XI, 79.
- affected by certain stimulants, Rec. XI, 79.
- affected by sugar, Rec. VII, 701; IX, 175; XI, 184.
- effect on excretion of phosphoric acid, Rec. IV, 784, 976.
- effect on metabolism, Rec. XI, 1067.
- effect on respiratory quotient, Rec. XI, 72.
- influence on metabolism of protein, Rec. VIII, 149.

Museum specimens, preservation, Rec. VIII, 473.

Mushroom—

- beds, fungi on, Rec. V, 347.
- lecithin content, Rec. V, 803.
- poisoning, Rec. V, 820, 1097; VII, 504; IX, 649; X, 47, 417.
- poisoning and remedies, Rec. XI, 121.

Mushrooms— (See also FUNGI, EDIBLE.)

- analyses, Rec. VII, 217, 302; VIII, 600; X, 376, 378.
- analysis of air by, Rec. VIII, 671.
- as a greenhouse crop, Rec. IX, 51.
- food, Rec. X, 397; XI, 184.
- carbohydrates in, Rec. V, 819; VI, 195.
- chitin in, Rec. VII, 186.
- chlorate of potash in, Rec. VI, 49.
- coloration of tissues, Rec. VII, 564, 657.
- culture, Rec. V, 347; VI, 548, 637; VII, 770, 867; VIII, 496, 888; IX, 357, 450, 560, 840; X, 354; XI, 451.
- culture—
 - disinfectants, Rec. V, 731.
 - experiments, Rec. VII, 801.
 - in Paris, Rec. X, 551.
- digestibility, Rec. X, 377, 378.
- diseases, Rec. V, 347; VI, 234, 311.

Mushrooms—Continued.

- economic and pathological relations, Rec. IX, 981.
- edible, Rec. XI, 153.
- edible—
 - analyses, Rec. XII, 647.
 - and poisonous, Rec. VI, 728; VII, 217, 308, 404, 504, 867; VIII, 407, 496, 886; IX, 450, 560, 561; X, 551; XII, 952.
 - in the United States, Rec. V, 611.
- food value, Rec. X, 583.
- fungus diseases, Rec. IV, 694.
- glycogen in, Rec. VII, 557.
- growing on benches, Rec. XI, 649.
- insects affecting, Rec. V, 348; VI, 567; X, 169.
- in their bearing on medicine, Rec. VII, 308.
- nitrogenous compounds, Rec. X, 920.
- notes, Rec. XI, 322, 1047.
- oxidizing ferments, Rec. IX, 723.
- oxydase, Rec. IX, 421.
- permanency of races in, Rec. VI, 53.
- potassium chlorate in, Rec. V, 1097; VI, 49.
- preservation, Rec. X, 929.
- separation of laccase and tyrosinase in, Rec. VIII, 743.
- soluble proteo-hydrolytic ferment in, Rec. X, 929.
- study, Rec. VI, 992; IX, 646.
- sugars in, Rec. IV, 614.
- trehalose in, Rec. IV, 614; V, 1097.
- tyrosin in, Rec. VIII, 470.
- use, Rec. IX, 754.
- varieties, Rec. IX, 649.

Muskmelon—

- black mold, Rec. XI, 755.
- disease caused by *Alternaria*, Rec. XI, 552.
- wilt—
 - disease, prevention by fertilization, Rec. XII, 568.
 - notes, Rec. XI, 357.

Muskmelons—

- analyses, Rec. II, 582; VIII, 54.
- crossed with cucumbers, Rec. II, 510.
- culture, Rec. VII, 770; IX, 357.
- culture—
 - experiments, Rec. V, 778; VII, 120, 402, 685; VIII, 313; IX, 450.
 - in France, Rec. VI, 637.
- fertilization by insects, Rec. X, 1060.
- fertilizer experiments, Rec. XI, 445.
- fertilizer experiments on sandy soils, Rec. XII, 622.
- flowers, Rec. XII, 341.
- fungus diseases, Rec. VI, 824.
- grafting, Rec. XI, 153.
- growing under glass in summer, Rec. XII, 1039.
- herbaceous grafting, Rec. II, 508.
- insects affecting, Rec. VII, 402.
- leaf blight, Rec. VIII, 991.
- notes, Rec. X, 254.
- pinching or heading in vines, Rec. XII, 342.
- physiological disease, Rec. XI, 755.
- pollination, Rec. XI, 707.
- removal of staminate flowers, Rec. XII, 342.
- transplanting, Rec. XII, 341, 798.

Muskmelons—Continued.

varieties, *Bul.* 2, I, 33; *Bul.* 2, II, 88; *Rec.* I, 254; II, 395, 396, 515, 566, 641; III, 30, 85, 386, 724; V, 189, 982, 983; VI, 142, 988; VII, 213, 402, 403, 405, 685; VIII, 791, 889; X, 639; XII, 342, 552.

Mussels, analyses, *Rec.* II, 481; IX, 935; X, 426.

Must— (*See also* Musts.)

analyses, *Rec.* V, 350.

and wine—

addition of acids to, *Rec.* V, 735.

analysis, *Rec.* VII, 463.

centrifugal treatment, *Rec.* V, 735.

concentrated, a new method, *Rec.* V, 735.

fermentation, *Rec.* X, 123; XII, 996.

for fungus cultures, *Rec.* V, 539.

methods of analysis, *Rec.* VI, 615.

specific gravity tests as compared with analyses of wine, *Rec.* IV, 869.

Mustard—

adulteration, *Rec.* XI, 970.

analyses, *Rec.* XII, 79.

and cress for market, *Rec.* IX, 245.

annual, *Rec.* XI, 315.

as affected by fungicides, *Rec.* XI, 462.

an insecticide, *Rec.* VIII, 321.

assimilation of nitrogen by, *Rec.* V, 649, 693; VI, 18; VII, 562, 657; IX, 624, 920.

ball, notes, *Rec.* VIII, 703; IX, 453, 653, 758.

beetle in England, *Rec.* IV, 852.

black—

assimilation of free nitrogen by, *Rec.* V, 693.

notes, *Rec.* III, 308, 598; IX, 143.

root system, *Rec.* IV, 46.

Chinese, notes, *Rec.* VI, 217.

culture, *Rec.* IX, 357.

dross, effect on wireworms, *Rec.* XI, 767.

effect on—

digestion, *Rec.* VII, 148.

pancreatic digestion, *Rec.* VIII, 157.

eradication, *Rec.* X, 760, 1049.

for green manuring, *Rec.* V, 924.

wireworms, *Rec.* VIII, 807.

germination tests, *Bul.* 2, I, 30.

hare's ear, *Rec.* VIII, 703, 892; IX, 453, 454, 653, 758.

hedge—

destruction, *Rec.* VII, 218.

extirpation, *Rec.* VIII, 58.

notes, *Rec.* III, 598; V, 685; IX, 143, 956.

root system, *Rec.* IV, 46.

notes, *Rec.* V, 623, 881; X, 547.

oil—

determination, *Rec.* XII, 877.

determination in feeding stuffs, *Rec.* VIII, 203, 378.

in oil cakes, *Rec.* IV, 973.

rape seed, *Rec.* IV, 973.

rape-seed cake, *Rec.* IV, 449, 973; XI, 22, 619.

rape-seed cake, formation and harmful effects, *Rec.* XII, 877.

Sarepta, notes, *Rec.* V, 1021.

seed—

cake, analyses, *Rec.* IX, 538.

determination of starch, *Rec.* X, 607.

injurious to cows, *Rec.* V, 913.

Mustard—Continued.

tower, notes, *Rec.* IX, 758.

treacle, notes, *Rec.* IV, 167, 699.

tumbling, *Rec.* V, 529, 628; VI, 415; VII, 407, 511, 588, 872; VIII, 410, 703, 892; IX, 143; X, 121, 760.

tumbling, notes, *Rec.* IX, 143, 453, 758.

value for green manuring, *Rec.* III, 927.

varieties, *Rec.* V, 189; VI, 142; VII, 405.

water absorption of seed, *Rec.* XI, 1056.

white—

analyses, *Bul.* 2, II, 124; *Rec.* IX, 873.

as a catch crop, *Rec.* VII, 121.

a green manure, *Rec.* V, 652; VIII, 400.

a green manure for corn, *Rec.* IX, 340.

assimilation of nitrogen by, *Rec.* V, 649, 693; VI, 18; VII, 657; IX, 920.

culture and use, *Rec.* X, 349.

culture experiments, *Bul.* 2, II, 124; *Rec.* V, 291; VI, 405.

effect of different phosphates, *Rec.* XI, 436.

green manuring *v.* barnyard manure for, *Rec.* VII, 292.

notes, *Rec.* III, 598; V, 693; VI, 822; X, 349; IX, 143; XII, 328.

varieties, *Rec.* I, 143.

wild—

as the cause of tympanites, *Rec.* XI, 592.

destruction, *Rec.* XII, 44, 564.

wild, destruction by—

ammonium sulphate, *Rec.* XII, 351, 1052.

chemicals, *Rec.* XII, 253, 349.

copper sulphate, *Rec.* XII, 250, 253, 349, 351, 564, 759.

iron sulphate, *Rec.* X, 760; XI, 461; XII, 250, 253, 351, 564.

metallic salts, *Rec.* XII, 1052.

wild—

eradication, *Rec.* IX, 454, 1055; XI, 159, 461, 749, 856.

notes, *Rec.* IV, 47, 167, 472, 591, 699; V, 529, 913; VI, 145; VIII, 703; IX, 143; X, 1049; XI, 461.

root system, *Rec.* IV, 46.

wormseed, notes, *Rec.* IV, 167, 699.

yellow, eradication, *Rec.* VIII, 234.

Mustards, rôle in agriculture, *Rec.* XII, 338.

Mustela caurina, notes, *Rec.* II, 258.

Mustelidæ in Idaho, *Rec.* III, 184.

Mustiala, Finland, Agricultural and Dairy Institute, report, *Rec.* IX, 298, 704.

Musts— (*See also* Must.)

composition and classification, *Rec.* VIII, 981.

determination—

of acidity, *Rec.* XI, 618.

reducing sugars, *Rec.* XI, 509.

eudiometric method for determination of acidity, *Rec.* XI, 618.

polarimetric, investigations, *Rec.* V, 440.

refrigeration, *Rec.* VIII, 348; IX, 696.

sterilization, *Rec.* X, 322.

Mutillidæ of North America, monograph, *Rec.* XI, 66.

Mutinus brevis, *Rec.* X, 824.

Mutton—

analyses, *Rec.* X, 571.

ash analyses, *Rec.* X, 572.

Mutton—Continued.

cost of production, Rec. II, 437; IV, 67; V, 240.

measle, notes, Rec. II, 79.

quality as affected by food, Rec. V, 241.

sheep, French, Rec. VIII, 157.

Mya arenaria, food value, Rec. X, 678.

Myceliophthora lutea—

notes, Rec. VI, 311.

on mushrooms, Rec. VI, 234.

Mycelium—

of aerial parts of plants, nitrogen assimilation, Rec. XI, 1016.

Autobasidiomycetes, vascular hyphae, Rec. VII, 466.

perennity of, Rec. V, 1099; VI, 17.

Mycena epipterygia, notes, Rec. IX, 960.

Mycetophagidæ, monograph, Rec. XI, 562.

Mycocecidia of *Ræstelia*, Rec. X, 971.

Mycoderma—

cerevisia, notes, Rec. X, 124.

cucumerina, morphology and physiology, Rec. XII, 912.

sp., in beer, Rec. XII, 916.

vini, notes, Rec. X, 124.

Mycological—

flora of Montpellier, Rec. VI, 647.

literature—

index, Rec. III, 328, 759, 811; IV, 956.

North American, index to, Rec. II, 33, 303, 455, 749.

reviews, Rec. III, 810.

Mycology—

bacteriology in its relation to, Rec. V, 1098.

contributions to, Rec. VI, 232.

studies, Rec. VI, 742.

technical, handbook, Rec. VIII, 868.

Mycophagy, importance in botanical instruction, Rec. IX, 318.

Mycoplasma theory of Eriksson, Rec. XI, 1060.

Mycorrhiza—

endotropic, studies, Rec. XI, 322, 910.

humus plants, nutrition by, Rec. XII, 219.

importance, Rec. XII, 314.

importance in nutrition of plants, Rec. V, 923.

influence on common pine, Rec. V, 1031.

notes, Rec. XII, 1014.

of *Listera cordata*, Rec. VII, 925; IX, 727.

Ophrys aranifera, Rec. IX, 726.

orchids, Rec. IX, 726.

Thismia aseröe, Rec. VII, 188.

on grape roots, Rec. VI, 969.

structure, Rec. X, 122.

Mycorrhizæ—

of *Aplectrum*, Rec. IX, 812.

forest trees, notes, Rec. IV, 693.

root symbiosis, Rec. VI, 557.

Mycosis in fowls, nature and treatment, Rec. XII, 395.

Mycosphærella cerasella, description, Rec. XII, 768.

Myelin, preparation from egg yolk, Rec. XI, 510.

Myeloid ceratomix, notes, Rec. IX, 853.

Mytilia lapidescens, composition, Rec. VII, 557.

Mytilopsis langloisii, notes, Rec. VII, 188.

Myochrous denticollis, notes, Rec. XII, 862.

Myodocha scrippes, notes, Rec. XI, 952.

Myology, veterinary, nomenclature, Rec. XI, 285.

Myoporum—

acuminatum, poisonous to stock, Rec. XI, 1057.

deserti, poisonous to stock, Rec. XI, 1057.

Myriapoda of North America, Rec. V, 740.

Myriapods—

as carriers of disease, Rec. XI, 995.

history and classification, Rec. VII, 698.

notes, Rec. X, 168.

n. sp., notes, Rec. XI, 265.

on lettuce, Rec. IV, 284.

phosphorescent, notes, Rec. II, 746.

Myristic acid in butter, Rec. V, 954.

Myrmecological, notes, Rec. VIII, 910.

Myrmeleon, study, Rec. XI, 657.

Myrobalan—

plum trees, variegated foliage, Rec. V, 1099.

stocks for—

apricots, Rec. II, 218.

plums, Rec. II, 218.

Myrosin—

chemical properties, Rec. VI, 376.

in plants, physiological significance, Rec. V, 314, 654, 913.

Myrtaceæ, blights, Rec. VII, 39.

Mysia (coccinella) 15-punctata, notes, Rec. IV, 839.

Myrosporium—

aductum, n. sp., notes, Rec. XI, 360.

alliorum, notes, Rec. XI, 360.

Mytilaspis affecting citrus fruits, Rec. XI, 657.

Mytilaspis—

alba, notes, Rec. X, 973.

citricola. (See SCALE, PURPLE.)

fulva—

notes, Rec. VI, 438.

remedies, Rec. XII, 975.

gloveri. (See SCALE, GLOVER.)

n. sp., notes, Bul. 2, I, 176.

pallida maskelli, notes, Rec. IX, 1072.

philococcus, notes, Rec. VI, 443.

pomorum. (See BARK-LOUSE, OYSTER-SHELL.)

Myrobolus bicaudatus, notes, Rec. IX, 1031.

Myxogasters of Maine, Rec. VIII, 109, 671.

Myxomycetes—

biology, Rec. VIII, 108, 380.

morphology and botany, Rec. VII, 838.

new genus, Rec. VIII, 607; IX, 119.

new, in New South Wales, Rec. X, 612.

new species, Rec. IV, 692.

of Miami Valley, Ohio, Rec. VIII, 291.

Myxosporidia, studies, Rec. IX, 1031.

Myxosporidium, n. sp., Rec. IX, 369.

Myzomimus scutata, n. gen., notes, Rec. III, 501.

Myzus—

cerasi, notes, Bul. 2, II, 58; Rec. II, 253, 281;

VI, 316; VII, 230; IX, 469; X, 66, 766, 1066;

XI, 562, 657.

mahaleb, notes, Rec. IX, 668.

persicae. (See PEACH APHIS.)

ribis, notes, Bul. 2, II, 119; Rec. VII, 880; X,

268, 467, 869, 1066; XI, 657.

Nabis fusca, notes, Rec. VI, 150.

Nagpur, India, experimental farm, Rec. VII, 766.

Nail rod, analyses, Rec. III, 629.

Naked weed, analyses, Rec. III, 629.

Naphtha products, examination, Rec. VI, 15.

Naphthalin—

as an insecticide, Rec. II, 415; IV, 473.

for grain moths, Rec. IV, 253.

- Naphtholate of soda as a fungicide, **Rec. VI**, 1001.
 Napoleon's willow, notes, **Rec. IV**, 655.
 Narcissus—
 basal rot, notes, **Rec. XII**, 860.
 fly, notes, **Rec. VIII**, 507, 1001.
Narcissus horsefieldii, notes, **Rec. VIII**, 956.
 Narcosis of animals, notes, **Rec. XI**, 291.
 Nasal bot in sheep, **Rec. VII**, 413.
Nasticus cavicola, notes, **Rec. X**, 273.
Nasturtium armoracia, notes, **Rec. IX**, 143.
 Nasturtium—
 anthracnose, notes, **Rec. IV**, 54.
 blight, notes, **Rec. IX**, 657.
 diseases—
 notes, **Rec. IV**, 53.
 treatment, **Rec. XI**, 752.
 Nasturtiums—
 Alternaria sp. on, **Rec. IV**, 54.
 modification of spurs, **Rec. V**, 923.
 notes, **Rec. V**, 1104.
 Pleospora on, **Rec. V**, 400.
 Natal—
 botanic gardens, **Rec. XII**, 220.
 indigenous plant, **Rec. VI**, 278.
 redtop, culture experiments, **Rec. VIII**, 401.
 National Agricultural Institute of France, **Rec. V**, 627.
 National Agricultural Society of France, **Rec. V**, 265.
 National Bureau of Standards, notes, **Rec. XII**, 900.
 National Geographic Society, **Rec. XI**, 429.
 National Irrigation Congress, **Rec. XI**, 195; **XII**, 499.
 National League for Good Roads, convention, **Rec. V**, 328.
 National Live Stock Sanitary Association, **Rec. V**, 1042.
 National Museum, United States, bulletins, **Rec. V**, 740.
 National Road Conference, proceedings, **Rec. VI**, 677.
 National School of Forestry, France, report, **Rec. IV**, 783.
 National Society of Agriculture in Egypt, **Rec. X**, 303.
 "Natto," vegetable cheese, **Rec. VI**, 672; **XII**, 280.
 Natural history, text-book, **Rec. VII**, 842.
 "Natural Plant Food," analyses, **Rec. VIII**, 575, 766, 768; **IX**, 1043, 1044; **X**, 235.
 Natural selection, **Rec. IX**, 726.
 Natural selection, inadequacy, **Rec. V**, 657.
 Nature studies in schools, **Rec. X**, 713.
 Nature study—
 methods, **Rec. XII**, 452.
 teachers' leaflets, **Rec. IX**, 999.
 Navarretia—
 setiloba, notes, **Rec. VI**, 114.
 setosissima punctata, notes, **Rec. VI**, 114.
 Navels of new-born calves, disinfection, **Rec. V**, 259.
 Navigation—
 in Canada, opening, **Rec. IX**, 30.
 Florida as affected by water hyacinth, **Rec. IX**, 328.
Necrobis rufipes, notes, **Rec. IX**, 65.
 Necrosis—
 bacillus, notes, **Rec. XI**, 291.
 of grapevine, **Rec. X**, 859.
 Nectaries, extra floral, **Rec. X**, 121.
 Nectarine leaf curl, notes, **Rec. XII**, 463.
 Nectarines—
 analyses, **Rec. IV**, 918.
 forcing, **Rec. IX**, 755.
 forcing under glass, **Rec. XII**, 853.
 fruit development as affected by seed development, **Rec. XI**, 936.
 in cold storage, **Rec. V**, 909.
 notes, **Rec. VI**, 424; **IX**, 353; **X**, 49, 254, 547; **XII**, 945.
 varieties, **Bul. 2, I**, 183; **Rec. II**, 25, 295, 426, 599, 642; **III**, 361; **IV**, 918; **V**, 190, 586, 587; **VI**, 52, 55, 820; **VII**, 214; **VIII**, 134, 407, 889; **X**, 254.
 Nectarophora—
 destructor. (*See* PEA LOUSE, DESTRUCTIVE.)
 destructor, n. sp., notes, **Rec. XI**, 953.
 pisci, notes, **Rec. XII**, 970.
 tabaci, notes, **Rec. X**, 770; **XI**, 472.
 Nectria—
 bainii—
 notes, **Rec. XI**, 556; **XII**, 657.
 n. sp., notes, **Rec. XI**, 362.
 cinnabarina—
 conidia formation, **Rec. XI**, 516.
 notes, **Rec. VII**, 310, 513; **XII**, 573.
 on currant canes, **Rec. VIII**, 607.
 cucurbitula, notes, **Rec. XII**, 573.
 ditissima—
 as a cause of canker of plum trees, **Rec. IX**, 761.
 cultures, **Rec. XI**, 950.
 notes, **Rec. V**, 1030; **VI**, 647, 831; **XI**, 260, 758; **XII**, 262, 463, 573.
 ipomææ, notes, **Rec. IV**, 51; **VII**, 684.
 laurentiana, notes, **Rec. VII**, 410.
 melizæ, notes, **Rec. X**, 725.
 sp., notes, **Rec. XII**, 657.
 spp., notes, **Rec. XII**, 61.
 randa (?), notes, **Rec. IV**, 51.
 Nectria on pears, **Rec. IX**, 149.
 Needle grass, notes, **Rec. IV**, 699; **VIII**, 781; **X**, 147, 343.
 Needle—
 inoculation for mycological studies, **Rec. V**, 924.
 magnetic, secular change in direction, **Rec. V**, 1087.
 Negro bug—
 flea-like, notes, **Rec. IV**, 839; **VI**, 150.
 notes, **Rec. V**, 791; **X**, 369.
 Negroes, dietary studies, **Rec. XI**, 961.
Negundo aceroides, notes, **Rec. II**, 512, 663, 741; **III**, 521; **IV**, 655; **VIII**, 604.
 (*See also* ACER NEGUNDO and BOX ELDER.)
Nelsia paniculata, notes, **Rec. VII**, 588.
Nelumbo nucifera, asparagin in, **Rec. VII**, 468.
 Nematinae of North America, revision of genera and species, **Rec. VIII**, 148.
 Nematode. (*See also* HETERODERA.)
 Nematode—
 affections, **Rec. VIII**, 801.
 disease of rye, notes, **Rec. XII**, 462.
 galls, notes, **Rec. XI**, 173; **XII**, 462.
 leaf disease, notes, **Rec. III**, 327.
 root galls, studies, **Rec. I**, 185; **IV**, 353.
 worm disease of fowls, **Rec. XI**, 594.
 worms in sheep, **Rec. XII**, 598.

Nematodes—

- affecting clematis, Rec. XII, 263.
- ammonia salts for, Rec. XII, 62, 369.
- ammoniacal liquor for, Rec. VII, 225, 695.
- in roots of—

- coffee, Rec. X, 366; XI, 262.
- cucumbers, Rec. XII, 261.
- oats, Rec. III, 308.
- roses, Rec. III, 308.
- violets, Rec. III, 308.

in the soil—

- carbon bisulphid for, Rec. VI, 147.
- new method of destroying, Rec. IX, 852.

- notes, Rec. V, 402, 792; VII, 141; VIII, 68; X, 449; XII, 1067.

of cultivated plants, Rec. XI, 167, 259.

- oats and clover, Rec. V, 822; VI, 147.
- sugar beets, Rec. III, 820; V, 912; VII, 39, 876; IX, 660; XI, 1057.

of tobacco—

- notes, Rec. XII, 462.
- treatment, Rec. XI, 711.
- wheat, Rec. IX, 1062; XII, 1067.

on agricultural crops, Rec. X, 562.

- bouvardia, Rec. III, 308.
- chrysanthemums, Rec. III, 308.
- coleus, Rec. III, 308.
- lantana, Rec. III, 308.
- onions, Rec. V, 1011.
- ornamental plants, Rec. IV, 55.
- potatoes, Rec. VII, 876.
- tomatoes, Rec. V, 1011; VIII, 608.

parasitic in horses, Rec. XII, 893.

potash for, Rec. VII, 316.

- potash salts for repressing, Rec. III, 750; IV, 615, 689, 970; V, 732; VI, 61.

- remedies, Rec. VIII, 990; IX, 467; X, 972, 1055; XII, 462.

report by Halle Station, Rec. III, 656.

- repression, Rec. IV, 970; V, 226, 913; VI, 60; VII, 590; XI, 372, 429.

Nematoneura malvacearum, notes, Rec. VI, 739.*Nematus*—

- erichsonii*, notes, Rec. VI, 313; XI, 657.
- (*Messa?*) *marylandicus*, notes, Rec. III, 546.
- ribesii*, notes, Rec. III, 198; IV, 416; V, 740; VIII, 999; X, 65; XI, 765; XII, 468.
- ventralis*, notes, Bul. 2, II, 92; Rec. I, 21, 232; II, 116, 664.
- ventricosus*, notes, Bul. 2, II, 58, 119; Rec. I, 22, 291; III, 46, 313, 792; V, 985; VIII, 69, 146, 418; IX, 463.

Nemobius, North American species, Rec. VIII, 808.*Nemophila spatulata*, notes, Rec. VI, 114.*Nemorea leucaniæ*, notes, Rec. VII, 312.

Nenta of goats, remedies, Rec. XI, 493.

Neocerata rhodophaga, n. sp., notes, Rec. XII, 161.*Neocosmospora vasinfecta*—

- nivea*, notes, Rec. XI, 944.
- notes, Rec. XI, 944.

tracheiphila, notes, Rec. XI, 944.*Neonympha canthus*, notes, Rec. III, 318.*Neophasia menapia*, notes, Rec. IX, 670; XII, 64.

Neoplasma in cattle and sheep, Rec. IX, 497.

Neotia nidus-avis, germination, Rec. XI, 355.

Nepenthes—

- culture, Rec. IX, 951.
- digestion in leaves, Rec. XII, 912.
- digestive ferment, Rec. VII, 926.
- proteolytic enzym, Rec. IX, 813; XI, 124.

Nepeta—*cataria*—

- notes, Rec. V, 398, 399.
- root system, Rec. IV, 46.
- hederacea*, root system, Rec. IV, 46.

Nephelium—*lappaceum*—

- fat in seeds of, Rec. VII, 557.
- notes, Rec. VIII, 231.

litchi, notes, Rec. VIII, 231.*Nephelodes*—

- minians*, notes, Rec. V, 310; VI, 915; VIII, 66.
- violans*, notes, Rec. II, 719; V, 149.

Nephopteryx rubrizonella, notes, Rec. IX, 675; X, 569.

Nephroscope—

- improved, Rec. VIII, 207.
- marine, for navigators, Rec. V, 1087.

Nephritis, acute, of horses, Rec. V, 203.

Neptula—

- nigricansella*, notes, Rec. XI, 958.
- rubifoliella*, notes, Rec. IV, 839.
- villosella*, notes, Rec. IV, 839.

Nerius lineolatus, notes, Rec. XII, 367.

Nervous system and nutrition, Rec. VII, 708.

Neslia paniculata, notes, Rec. V, 629; VIII, 703; IX, 653.

Nessler's reagent for detection of ammonia, Rec. IV, 781, 983.

Nest box for hens, egg record, Rec. XI, 969; XII, 298.

Netting, wire, for peas, Rec. V, 827.

Nettle—

dead—

- notes, Rec. V, 398.
- root system, Rec. IV, 46.
- horse. (See HORSE NETTLE.)
- stinging, for fiber, Rec. VI, 207.
- trees notes, Rec. IV, 654.

Neuhaus, Germany, Experiment Station for Potato Culture, report, Rec. VIII, 975.

Neurachne muelleri, n. sp., Rec. VII, 299.

Neuritis, enzootic, of sheep, Rec. XI, 93.

Neuroptera of Italy, Rec. X, 167.

Neuroterus q-saltatorius, notes, Rec. XI, 954.

Nevada weeds, notes, Rec. V, 497; XI, 158.

New Jersey Stations, laws relating to, Rec. IV, 76.

New South Wales, agricultural instruction, Rec. III, 836.

New York dairy commissioner, report, Rec. V, 543.

New Zealand flax—

- distribution, Rec. III, 597.
- report on, Rec. V, 92, 94.

New Zealand poultry department, report, Rec. XI, 883.

Newspaper bulletins, Rec. V, 1003.

Niaouli tree, notes, Rec. VI, 427.

Nickle salts, injurious effect, on plants, Rec. V, 539, 697.

Nicotiana—*attenuata*, notes, Rec. III, 598.*rustica*, germination as affected by light, Rec. XII, 1049.*suaveolens*, notes, Rec. XI, 220.*Nicotianæ*, classification, Rec. VI, 617.

Nicotin—

as an insecticide, Rec. XI, 474; XII, 470.
composition, Rec. IX, 420.

content of cigars and smoking tobacco, Rec. X, 413.

decomposition by enzymes, Rec. XI, 728.

detection, Rec. XI, 705.

determination—

in tobacco, Rec. V, 433, 727; VII, 32; XI, 22; XII, 820.

in tobacco, Kissling's and Kosutany's methods, Rec. V, 433; VII, 32.

of ammonia in, Rec. VII, 364.

formation and combustion, Rec. XI, 576.

in California tobacco, Rec. XII, 943.

tobacco, Rec. III, 65; IV, 820; VIII, 221, 397; XII, 716.

tobacco, localization, Rec. V, 649.

Nicotinia—

analyses, Rec. II, 581; V, 206.

as an insecticide, Rec. II, 415.

Niellia opulifolia, notes, Rec. III, 522.

Nigger weed, notes, Rec. VI, 732.

Night soil, Rec. VIII, 880.

Night soil—

analyses, Rec. XII, 39.

as a fertilizer, Rec. VI, 713, 797; IX, 35, 740.

disposal, Rec. VII, 942.

fertilizing constituents, Rec. V, 924.

field experiments, Rec. XII, 627.

fresh, use, Rec. IV, 222.

notes, Rec. VI, 134; XI, 1025.

preservatives, Rec. V, 1098.

Nightshade—

black, notes, Rec. X, 516; XI, 858.

deadly, poisoning, treatment, Rec. XI, 495.

spiny, notes, Rec. III, 217; VI, 224, 551.

spreading, notes, Rec. X, 516.

Nikoteen as an insecticide, Rec. XII, 62.

Nile—

cultivation and nitrates, Rec. VIII, 881.

floods, Rec. XII, 521, 831.

floods, relationship to monsoon rains, Rec. XII, 424.

mud as a fertilizer, Rec. XI, 135.

observations on flow of, Rec. V, 1086.

water supply, Rec. XII, 197.

Nimble will, analyses, Bul. 2, 1, 108.

Nine-bark, notes, Rec. III, 522; IV, 656.

Niramus—*abruptus*, notes, Rec. IX, 254.*candidus xanthocephalus*, notes, Rec. IX, 254.*marginatus*, notes, Rec. IX, 254.*orpheus*, notes, Rec. IX, 254.*pallidus*, notes, Rec. IX, 254.*parallelus*, notes, Rec. IX, 254.*picturatus*, notes, Rec. IX, 254.*rotundatus*, notes, Rec. IX, 254.*secundarius*, notes, Rec. IX, 254.*tyrannus*, notes, Rec. IX, 254.

Niter earth, analyses, Rec. VIII, 377; XI, 314, XII, 530.

"Niter" or "sugar sand," analyses, Rec. XII, 78.
Nitidulidæ, monograph, Rec. XI, 562.

Nitragin— (See also NITROGEN ASSIMILATION and SOIL INOCULATION.)

and nitrogen, notes, Rec. XII, 219.

root tubercles, Rec. XI, 25, 711; XII, 114.
application of, Rec. VIII, 108.

experiments, Rec. VIII, 865; IX, 119, 327, 329, 526, 956, 1028; X, 547, 627, 722, 731, 824, 837, 845, 926, 1012, 1013; XI, 26, 218, 515, 516, 816, 908; XII, 220, 352, 745.

experiments—

with clover, Rec. XII, 518.

clover seed, Rec. XII, 537.

kidney vetch, Rec. XII, 745.

oats, Rec. XII, 532.

increase of efficiency, Rec. XI, 318.

review, Rec. IX, 899, 1028; X, 613; XI, 424.

studies, Rec. XI, 29.

Nitrate—

and superphosphate for potatoes, Rec. VII, 681.

bearing clay, Egyptian, analyses, Rec. VII, 669.

clays of Egypt, Rec. VI, 401, 516.

deposits—

of Chile, Rec. VI, 401; VIII, 485; X, 235.

Columbia, Rec. VI, 401.

South Africa, Rec. VI, 979; VIII, 485.

destroying—

bacillus, new, Rec. VII, 929.

bacteria, Rec. VIII, 391.

fields, Griqualand, Rec. VII, 111.

formation, chemistry, Rec. VIII, 682.

reducing—

bacteria, Rec. VII, 279.

bacteria, straw as culture medium, Rec. XI, 830.

soluble ferments in animals, Rec. XI, 715

Nitrate of calcium, preparation, Rec. III, 927.

Nitrate of copper—

effect on—

germination of seeds, Rec. V, 882.

soil and plants, Rec. III, 499.

for oat smut, Rec. II, 639.

stinking smut of wheat, Rec. III, 226, 286.

Nitrate of potash. (See POTASSIUM NITRATE.)

Nitrate of soda—

absorptive power of soils, Rec. VI, 121.

analyses, Rec. I, 15; II, 101, 154, 280, 481, 581, III, 6, 8, 162, 168, 299, 471, 536, 764, IV, 25, 26,

27, 465, 787, 902; V, 164, 288, 487, 572, 777, 861; VI, 202, 287, 396, 401, 402, 522, 631, 797; VII,

109, 111, 195, 294, 295, 668, 670, 757, 940; VIII,

389, 485, 563, 767, 877, 966; IX, 336, 538, 636,

825, 919, 934, 939, 1044; X, 230, 426, 428, 623,

1031; XI, 138, 528, 719, 830, 831, 917; XII, 129,

131, 626, 717, 840, 907, 931, 933.

and ammonium sulphate, comparative action, Rec. IV, 222.

barnyard manure, Rec. VII, 25.

blood meal for flax, Rec. XI, 42.

muriate of potash *v.* nitrate of potash, Rec. XII, 735.

Nitrate of soda—Continued.

- and phosphates, agricultural value, *Rec.* IX, 73.
- soil exhaustion, *Rec.* X, 623.
- sulphate of ammonia, relative fertilizer value, *Rec.* XII, 529.
- superphosphates for sugar beets, *Rec.* IX, 240.
- as a fertilizer, *Rec.* V, 651; XI, 831; XII, 131, 841.
- a supplement to barnyard manure, *Rec.* XII, 843.
- a top-dressing for timothy and rye, *Rec.* VII, 679.
- an insecticide, *Rec.* II, 720; V, 684.
- availability for—
 - grass, *Rec.* XI, 722; XII, 527.
 - Hungarian grass, *Rec.* XII, 528.
- cattle poisoning by, *Rec.* VII, 66, 526.
- change in weight on exposure to the air, *Rec.* XII, 428.
- cost of nitrogen from, *Bul.* 2, I, 39.
- crisis in Chile and guano trade in Peru, *Rec.* X, 136.
- determination of—
 - chlorates, *Rec.* XI, 505.
 - iodic acid, *Rec.* XII, 308.
 - nitrogen, *Rec.* III, 654.
- effect, *Rec.* X, 235, 533.
- effect on—
 - growth of field crops, *Bul.* 2, II, 83.
 - humus and nitrogen content of soils, *Rec.* XII, 727.
 - nitrogen content of soils, *Rec.* V, 651, 698.
- fertilizing effect, *Rec.* X, 533.
- for apples, *Rec.* XII, 344.
- barley, *Rec.* IV, 965; V, 704, 708, 712; X, 954.
- beets, *Rec.* VII, 198.
- cabbages, *Rec.* V, 716; VIII, 600.
- carnations, *Rec.* III, 290.
- clover on chalk soils, *Rec.* V, 708.
- clover when grown with other crops, *Rec.* IX, 45.
- corn, *Rec.* IV, 804; V, 573, 776, 778, 780, 862, 1071.
- cotton, *Rec.* V, 976; VII, 26.
- cowpeas, *Rec.* V, 779, 780.
- eelworms, *Rec.* VIII, 801.
- flax, *Rec.* V, 233; XI, 42.
- forage crops, *Rec.* XI, 439.
- grape cuttings, *Rec.* IV, 828.
- grapes, *Rec.* XII, 852.
- grass, *Rec.* V, 233, 291, 578.
- grasses and pasture lands, *Rec.* V, 526, 707, 710.
- mangel fly, *Rec.* IX, 74.
- mangel-wurzels, *Rec.* V, 705, 713.
- oats, *Rec.* IV, 915, 965; V, 233, 291, 575, 579, 701; VI, 891; IX, 552.
- onions, *Rec.* IV, 253.
- peach trees, *Rec.* V, 397.
- peas, *Rec.* V, 233.
- potatoes, *Rec.* III, 34; IV, 819; V, 232, 573, 702, 715; VII, 28, 198.
- rape, *Rec.* V, 625.
- ruta-bagas, *Rec.* V, 707, 713.

Nitrate of soda—Continued.

- for rye, *Rec.* III, 655; VII, 679, 681; XI, 239.
 - soy beans, *Rec.* V, 779, 780.
 - strawberries, *Rec.* IV, 42; V, 396.
 - sugar beets, *Rec.* IV, 872, 985; V, 1016; VII, 765; VIII, 685, 777; IX, 240; X, 954.
 - sweet potatoes, *Rec.* V, 394.
 - timothy, *Rec.* III, 299; VII, 679.
 - tobacco, *Rec.* IV, 908, 909; V, 864, 865; IX, 545.
 - tomatoes, *Rec.* I, 261; II, 367; III, 30, 293, 299, 626, 879; IV, 43; V, 393; VI, 813; VIII, 493.
 - turnips, *Rec.* V, 708, 709; VI, 159.
 - vegetables, *Rec.* X, 639; XII, 150.
 - wheat, *Rec.* II, 727; III, 35, 927; IV, 210, 342, 343, 915; V, 165, 233, 495, 625, 705, 712, 780; VI, 891; X, 848.
 - guaranty of composition, *Rec.* V, 651.
 - industry, *Rec.* X, 623.
 - industry in Chile, *Rec.* XI, 138, 528; XII, 131.
 - injurious—
 - constituents, *Rec.* XI, 39.
 - effects, *Rec.* VIII, 391, 881, 969; IX, 436, 826; X, 235; XI, 239; XII, 225, 530.
 - nitrogen in, *Rec.* V, 464.
 - on chalk soils for turnips, barley, and clover, *Rec.* V, 708.
 - marsh soils, *Rec.* XII, 428.
 - perchlorates in, *Rec.* X, 410, 716, 918; XI, 110, 505, 1026; XII, 325, 735.
 - statistics, *Rec.* VI, 881; X, 427, 623, 735.
 - studies, *Rec.* XI, 331.
 - supplementary to barnyard manure, *Rec.* XII, 429.
 - time of applying, *Rec.* III, 324.
 - uses, *Rec.* VI, 521.
 - v. ammonia, fertilizing value, *Rec.* XII, 429.
 - ammonium salts as a fertilizer, *Rec.* X, 135.
 - dried blood for wheat, *Rec.* V, 165.
 - v. fish guano—
 - for barley, *Rec.* X, 954.
 - oats, *Rec.* VI, 891.
 - spring wheat, *Rec.* VI, 891.
 - sugar beets, *Rec.* X, 954.
 - v. nitrate of potash—
 - as a fertilizer, *Rec.* VI, 522.
 - for sugar beets, *Rec.* VIII, 777.
 - v. sulphate of ammonia—
 - as a fertilizer, *Rec.* V, 225, 548; VII, 294; VIII, 39; IX, 436.
 - for cabbages, *Rec.* VIII, 600.
 - flax, *Rec.* V, 233.
 - grasses, *Rec.* V, 233.
 - oats, *Rec.* V, 233.
 - peas, *Rec.* V, 233.
 - potatoes, *Rec.* V, 232.
 - sugar beets, *Rec.* VIII, 685.
 - wheat, *Rec.* V, 233; X, 848.
 - with salt for barley and wheat, *Rec.* V, 712.
- Nitrates—
- aerobic ferment which reduces, *Rec.* III, 916.
 - assimilability of nitrogen of, *Rec.* V, 346.
 - assimilation by—
 - phænerogams in darkness, *Rec.* X, 726, 822.
 - plants, *Rec.* VI, 507; VIII, 386; IX, 325, 330, 724, 922; X, 34, 1011; XI, 221.

Nitrates—Continued.

decomposition—

by bacteria, Rec. IX, 635, 1040.

in soils, Rec. XII, 728.

detection—

in milk, Rec. XI, 87.

water, Rec. XI, 419.

determination, Rec. III, 385; VII, 269; VIII, 663; XI, 21, 811; XII, 820.

determination—

apparatus for, Rec. VIII, 26; XI, 212.

by Gunning-Kjeldahl method, Rec. IV, 336; V, 975; VI, 110.

Schlössing method, Rec. V, 1026; XII, 515.

Schlössing-Wagner method, Rec. V, 464.

Schmitt method, Rec. V, 252.

Schulze-Tiemann method, Rec. III, 385; V, 975.

Scovell-Jodlbauer method, Rec. V, 975.

titration, Rec. X, 19.

Ulrich method, Rec. V, 385.

zinc-iron method, Rec. V, 464; VI, 181.

in cultivated plants, Rec. VIII, 105.

fertilizers, Bul. 2, II, 65.

potable water, Rec. III, 109; VI, 189.

water, Rec. V, 1027; VI, 15, 189; XI, 112.

new reagents for, Rec. VIII, 377.

nitrometer for, Rec. V, 728.

of nitrogen in, Rec. III, 654; IV, 313, 448, 583, 612, 633, 676, 781, 980, 983, 984; V, 126, 222, 252, 464, 728, 975; VI, 9, 110, 273, 367, 368, 369, 376, 690, 867; VII, 181, 272, 552; IX, 116; XI, 311, 705; XII, 510, 515.

effect on—

assimilability of potash in soil, Rec. VI, 286.

germinating seeds, Rec. VII, 36.

growth of corn, Bul. 2, II, 115.

formation, Rec. VIII, 574.

formation—

during nitrification, Rec. III, 550, 551.

in plants, Rec. II, 456.

function in plant growth, Rec. IV, 984; VII, 938.

in germinating plants, Rec. VIII, 27.

giving plants, Rec. V, 729.

potable water, Rec. VII, 848; VIII, 37.

rain water, Rec. III, 82.

snow, Rec. III, 82.

in soil—

conservation, Rec. VI, 706.

decomposition, Rec. XI, 32, 331, 831; XII, 728.

indol reagent for, Rec. V, 1027.

reduction, Rec. VII, 663; VIII, 870; X, 531.

transformation, Rec. XI, 331.

in vegetable products, Rec. VII, 915.

loss in drainage water, Rec. VI, 977, 978; VII, 99; IX, 631.

production in fallow soil, Rec. VIII, 574.

reduction, Rec. VII, 921.

reduction—

by bacteria, Rec. VII, 926.

lactic acid, Rec. XII, 611.

soil bacteria, Rec. XII, 729, 730.

in germination of seeds, Rec. IX, 227.

the presence of barnyard manure, Rec. XII, 321.

Nitric acid—

apparatus for determining, Rec. II, 483.

detection in wines, Rec. VIII, 562.

determination, Rec. IX, 420, 522; X, 513.

effect on—

germination, Rec. V, 882.

xylose and arabinose, Rec. VII, 271, 557.

for pyrale, Rec. IX, 776.

formation during combustion, Rec. XII, 1007.

in atmospheric waters, Rec. II, 341.

different soils, Rec. V, 156.

dry lands and paddy soils, Rec. II, 764.

river and reservoir water, Rec. IX, 522.

water, determination, Rec. IX, 723; XI, 312, 705; XII, 308, 418.

injurious effect on plants, Rec. VI, 617.

production from air, Rec. XII, 716.

reaction in water examination, Rec. XI, 811.

Nitric ferment, Rec. VIII, 959.

Nitric ferment—

of Stutzer and Hartleb, Rec. X, 123.

recent investigations, Rec. VI, 882.

Nitric organism, culture experiments, Rec. IX, 1029.

Nitric oxid, reduction by copper, Rec. X, 408.

Nitrification—

as affected by—

carbon dioxide, Rec. XII, 722.

fallowing, Rec. VII, 574.

lime, Rec. X, 830; XII, 442.

organic substances, Rec. XI, 424.

potassium salts, Rec. V, 1012.

proportion of nitrogen in humus, Rec. III, 655; IV, 294.

sulphate of lime and sulphate of iron, Rec. III, 750, 917.

experiments, Rec. IX, 731; XII, 836.

formation of—

free nitrogen during, Rec. VI, 22.

nitrates during, Rec. III, 550.

in arable soil, Rec. VI, 353, 491.

cultivated soils, Rec. V, 14.

meadow soils, Rec. V, 730, 903.

nitrogenous substances, Rec. VII, 293.

organic media, Rec. III, 578.

organic nitrogen, Rec. XII, 115, 722.

soils, Rec. III, 139, 366, 578, 636, 899; IV, 294, 537; VI, 353, 491; VII, 190, 933; VIII, 569, 871; IX, 334, 813, 820, 929; XII, 320.

in soil—

and manure, lecture, Rec. III, 139, 899.

as affected by cultivation, Rec. IV, 871, 961; V, 255.

conditions affecting, Rec. XII, 732.

investigations, Rec. III, 897, 898; IV, 984; V, 454, 651; VI, 22, 24, 706; XII, 39.

résumé and bibliography, Rec. VII, 279.

Nitrifying bacteria—

culture on gypsum plates, Rec. XII, 118.

isolation, Rec. XI, 827.

Nitrifying—

ferments of the soil, Rec. III, 578; V, 651.

organisms, Rec. II, 751; VI, 882; VII, 279, 391; VIII, 872, 959; IX, 1029; X, 123.

organisms—

as affected by lime, Rec. XII, 442.

affected by organic substances, Rec. XI, 711; XII, 722.

Nitrifying—Continued.

- organisms—continued.
 - culture, Rec. XII, 721.
 - morphology, Rec. IV, 613; VII, 277.
 - notes, Rec. XII, 114.

Nitrites—

- analysis, Rec. XI, 112.
- decomposition, Rec. X, 533.
- determination, Rec. IX, 116; X, 117; XI, 21; XII, 306, 308.
- determination in presence of nitrates, Rec. XII, 716.
- in the air, Rec. VIII, 385.
- in water—
 - detection, Rec. IX, 322; XII, 18, 21.
 - determination, Rec. V, 1027; VII, 744; X, 514, 1005; XI, 312; XII, 18.
 - hygienic importance, Rec. XII, 426.

Nitrobacteria—

- as affected by laboratory air, Rec. XI, 125.
- decomposing rocks, Rec. III, 114.

Nitrobenzene azoguaiacol as an indicator, Rec. XI, 214.

Nitrogen—

- acids—
 - detection and estimation, Rec. VI, 110.
 - effect on plants, Rec. VII, 186.
- acquisition. (*See* NITROGEN ASSIMILATION.)
- albuminoid—
 - determination, Rec. III, 615, 633; VIII, 858, 861.
 - in corn, Rec. II, 399.
 - feeding stuffs, Rec. III, 615, 633; V, 465.
 - foods, Rec. II, 589.
- ammoniacal, assimilation by plants, Rec. VIII, 386; IX, 325, 330, 922; X, 1011.
- and ash constituents in the beech as affected by seed production, Rec. V, 256.
- carbon in organic matter, simultaneous determination, Rec. IV, 983; V, 253.
- forest vegetation, Rec. IX, 227, 624.
- mineral matters in a peach crop, Rec. VIII, 406.
- phosphoric acids, cheap forms, Rec. VI, 401.
- assimilation, Rec. IV, 854; V, 434, 747; VI, 202; XII, 219.
- assimilation— (*See also* NITRAGIN, ROOT TUBERCLES, and SOIL INOCULATION.)
- adaptability of bacteria to different legumes, Rec. VIII, 290; XII, 1013.
- as affected by atmospheric pressure, Rec. IX, 275.
- by alders and the Eleagnaceæ, Rec. VII, 561; X, 825.
- algæ, Rec. V, 649; VI, 278; VII, 922; X, 320; XI, 516.
- bacteria, Rec. VII, 922; XII, 614.
- beans, Rec. III, 337; IV, 14; XI, 121.
- black locust, Rec. III, 337.
- black mustard, Rec. V, 693.
- clover, Rec. III, 64; IV, 14; XI, 121, 816.
- cotton, Rec. VIII, 27.
- cowpeas, Rec. IV, 14; XI, 497.
- fungi, Rec. VIII, 29.
- fungus mycelium, Rec. XI, 1016.

Nitrogen—Continued.

assimilation—continued.

- by *Isopyrum biternatum*, Rec. V, 936.
- laburnum, Rec. III, 337.
- legumes as affected by removal of flowers, Rec. XI, 516.
- legumes as affected by sugar, Rec. XI, 516.
- Leguminosæ, Rec. I, 194; II, 375, 396, 397; III, 331, 334, 336, 374, 418, 491, 578; IV, 14, 448, 502, 517, 984; V, 110, 113, 225, 563, 835, 843, 845, 923; VI, 15, 115; VII, 19, 277, 362, 372, 467, 556, 561; VIII, 381, 867; IX, 29, 118, 227, 338, 552, 811; X, 321, 825; XI, 911; XII, 228, 311.
- lupines, Rec. III, 337; IV, 517; V, 616; VII, 467.
- microbes, Rec. V, 923, 1010; VII, 465.
- mustard, Rec. V, 649, 693; VI, 18; VII, 562, 657; IX, 624, 920.
- mycelium of aerial parts of plants, Rec. XI, 1016.
- nonleguminous plants, Rec. VI, 16, 381.
- Papilionaceæ, Rec. IX, 726.
- peas, Rec. III, 116, 337, 925; X, 618.
- phanerogams, Rec. VII, 654.
- plants, Rec. II, 399; III, 374; IV, 375, 504, 613, 782; V, 454, 563, 649, 651, 818, 923, 1028; VI, 16, 381; VII, 19, 467, 750, 922; IX, 724; X, 34, 414, 824; XI, 25, 26, 29.
- plants and micro-organisms, Rec. V, 434, 747, 1011.
- plants and soils, Rec. III, 64, 116, 211, 258, 260, 331, 336, 337, 418, 491, 499, 551, 552, 578, 636, 732, 925; V, 616.
- plants, résumé, Rec. VI, 115, 389.
- effect of soil nitrogen supply, Rec. XII, 827.
- effect of sugar, Rec. XI, 516.
- experiments, Rec. XI, 121.
- Hellriegel's investigations, Rec. V, 843.
- micro-organisms causing, Rec. IV, 854; V, 855, 1011, 1037; VII, 278, 465.
- of organic compounds, Rec. IX, 820.
- studies, Rec. XI, 1013.
- availability—
 - and cost, Rec. IX, 339.
 - in fertilizers, Rec. V, 777; VI, 130; IX, 540, 637; X, 232; XII, 323.
 - green manuring crops, Rec. V, 347, 924; VI, 133, 882.
 - leather refuse, Rec. VI, 24; VII, 290; VIII, 483.
 - manure, Rec. VII, 25.
 - organic form, Rec. V, 511; VI, 130; VII, 191; VIII, 387; IX, 540, 637; XI, 134, 328, 720; XII, 224, 932.
 - poudre, Rec. IX, 436.
 - recently formed nitrates, Rec. V, 346.
 - to plants, Rec. XI, 547.
- chemistry, Rec. VII, 271, 364.
- compounds—
 - absorptive power of soils for, Rec. II, 635.
 - formation and combustion, Rec. XI, 576.
 - in fungi, Rec. X, 920.
 - preparation, Rec. VII, 556.

Nitrogen—Continued.

conservation—

- by soils, *Rec. III*, 120, 578, 636.
- in bare soils as affected by iron sulphate, *Rec. III*, 750, 917.
- barnyard manure, *Rec. V*, 1098.
- soils by catch crops, *Rec. V*, 15; *VII*, 682; *VIII*, 126, 679.
- soils containing gypsum, *Rec. III*, 750, 917.

content—

- and color of wheat grains, *Rec. VI*, 543.
- of barley as related to weight of grain, *Rec. XI*, 633; *XII*, 326.
- blood when fasting, *Rec. IX*, 175.
- humus as affected by fertilizers, *Rec. XII*, 727.
- peas as related to weight of grain, *Rec. XII*, 327.
- root crops, *Bul. 2*, I, 89.
- soil as affected by cropping, *Rec. X*, 949.
- soil, effect on ratio between grain and straw, *Rec. VIII*, 781.
- soils and humus, *Rec. IX*, 33.
- wheat as related to weight of grain, *Rec. XII*, 327.

conveyed by red clover to soils, *Rec. IX*, 738.
cost, *Bul. 2*, I, 39; *Rec. VIII*, 115.

determination, *Bul. 2*, II, 65; *Rec. I*, 136; *II*, 523; *IV*, 117, 221, 286, 287, 313, 336, 448, 501, 583, 612, 676, 781, 983, 984; *V*, 222, 253, 462, 464, 510, 802, 1026; *VI*, 137, 181, 273, 368, 504, 609; *VII*, 111, 181, 272, 361, 826; *VIII*, 99, 274; *IX*, 116, 406, 721, 807, 1021; *X*, 605; *XI*, 106; *XII*, 20, 306, 515.

determination—

- apparatus for, *Rec. II*, 483; *XI*, 23; *XII*, 309, 419.
- by Dumas method, *Rec. X*, 408.
- Gunning method, *Rec. V*, 354; *VI*, 502.
- Kjeldahl method, *Rec. II*, 89; *IV*, 286, 387, 448, 583; *VI*, 864; *VII*, 89, 185, 361, 462; *VIII*, 22, 194; *IX*, 418, 1023, 1024; *X*, 605; *XI*, 20; *XII*, 20.
- Kjeldahl method, error in, *Rec. IX*, 1023, 1024.
- Kjeldahl-Wilfarth method, *Rec. IX*, 721.
- Ulsch method, *Rec. X*, 819.
- distillation of ammonia in, *Rec. XII*, 307.
- errors, *Rec. X*, 819.
- in feeding stuffs, *Rec. VI*, 864; *VII*, 89.
- milk and dairy products, *Rec. III*, 928; *VIII*, 22.
- nitrates. (*See* NITRATES.)
- nitrites. (*See* NITRITES.)
- organic matter, *Rec. III*, 924; *IV*, 86, 781; *XI*, 306.
- organic matter by Stock's method, *Rec. V*, 1026.
- peat, *Rec. XII*, 907.
- potassium nitrate, *Rec. XI*, 705.
- rain water, *Rec. VI*, 283, 512; *VIII*, 482; *X*, 315.
- soils, *Rec. III*, 616; *IV*, 961; *V*, 571; *VI*, 120.

Nitrogen—Continued.

determination—continued.

- in soils, organic, *Rec. V*, 1026.
- urea, modified method, *Rec. XI*, 813.
- urine, *Rec. IV*, 983; *VI*, 614; *VIII*, 22; *X*, 20.
- diffusion in chemical fertilizers, *Rec. XII*, 934.
- distribution in meat, *Rec. VIII*, 619.
- effect on—
 - barley, *Rec. IX*, 741.
 - root formation, *Rec. VIII*, 564; *IX*, 119.
 - yeasts, *Rec. XI*, 125.
- equilibrium, *Rec. VIII*, 70, 254.
- equilibrium—
 - in dogs, *Rec. XII*, 172.
 - man, *Rec. XI*, 1067.
- exchange of Herbivora as affected by variations in protein food, *Rec. IV*, 389.
- excretion—
 - after ingestion of protein, *Rec. XII*, 871.
 - as affected by consuming a day's ration in several portions, *Rec. IX*, 982.
 - as affected by feeding salt and water, *Rec. III*, 928.
 - as affected by large quantities of water, *Rec. XI*, 778.
 - as affected by salt and water in food, *Rec. IV*, 784.
 - by animals, *Rec. VII*, 817.
 - cows, *Rec. V*, 142.
 - dogs, *Rec. IX*, 474.
 - horses, *Rec. V*, 142.
 - man, diurnal variation, *Rec. IX*, 275.
 - pigs, *Rec. V*, 143.
 - in the metabolism of a horse and the production of diphtheria serum, *Rec. X*, 496.
 - urine after eating, *Rec. VII*, 804.
- experiments with different forms of, *Rec. II*, 147, 148, 398, 642.
- factors for computing protein, *Rec. XII*, 1069.
- feeding of—
 - green plants, *Rec. V*, 128; *VII*, 837.
 - phanerogamous plants, *Rec. X*, 235.
- fertilizer, loss, *Rec. VIII*, 388.
- fixation— (*See* NITROGEN ASSIMILATION.)
 - by alkaline earths, *Rec. VII*, 556.
 - dead leaves, *Rec. IX*, 813.
 - in clay soils, *Rec. IX*, 552.
 - forest soils, *Rec. IX*, 1041.
- form in cheese, *Rec. IV*, 99.
- forming bacillus, *Rec. VII*, 658.
- free—
 - combination with sulphur and carbon, *Rec. VII*, 185.
 - formation during nitrification, *Rec. VI*, 22.
 - loss in horse manure, *Rec. V*, 651.
 - nonassimilation by germinating barley, *Rec. VII*, 372.
- free extract—
 - digestibility, *Bul. 2*, II, 55.
 - of feeding stuffs, *Rec. VIII*, 639, 641.
 - feeding stuffs, digestibility, *Rec. VI*, 155.
 - feeding stuffs, nutritive value, *Bul. 2*, II, 52.
 - plants, *Rec. VIII*, 641.

Nitrogen—Continued.

- from catch crops, *Rec. V.* 420.
- different sources, cost, *Bul. 2, 1, 118.*
- gas, oxidation, *Rec. VIII.* 954.
- hunger and coffee disease, *Rec. XI.* 1061.
- in amids or amido acids, *Rec. XI.* 813.
- ammonia compounds, *Rec. V.* 464.
- barnyard manure, *Rec. V.* 141, 152; *VI.* 713; *IX.* 825.
- in barnyard manure—
 - assimilability, *Rec. V.* 651.
 - conservation, *Rec. VI.* 129.
 - loss, *Rec. I.* 138; *V.* 330; *VI.* 400, 629; *VII.* 198, 292, 490, 755; *VIII.* 760, 873; *X.* 731; *XI.* 828.
 - preservation, *Rec. VIII.* 873.
 - utilization, *Rec. VI.* 133, 797, 882.
- in chloroplatinates, unreliability of Kjeldahl method, *Rec. VI.* 775.
- corn at different cuttings, *Rec. V.* 977.
- crops as affected by nitrogenous fertilizers, *Rec. V.* 580.
- dried blood and leather refuse for rye, *Rec. XI.* 526.
- in feeding stuffs—
 - determination, *Rec. VI.* 864; *VII.* 89.
 - digestibility, *Rec. V.* 465; *XII.* 777.
- in fertilizers—
 - availability, *Rec. V.* 777; *VI.* 130; *IX.* 540, 637; *X.* 232.
 - cost, *Rec. I.* 258.
 - pepsin digestion for determining source, *Rec. II.* 644; *III.* 471.
 - pepsin method for availability, *Rec. XI.* 720.
- in field peas, digestibility, *Rec. XII.* 778.
- food, milk, and urine of cows, *Rec. V.* 524.
- fresh manure, utilization, *Rec. VII.* 25.
- green manuring plants, *Rec. V.* 347, 924; *VI.* 133, 882.
- green manuring plants, fertilizing effect, *Rec. VIII.* 758.
- guano, determination, *Rec. VI.* 609; *VII.* 652; *VIII.* 22, 23, 741.
- hoar frost, *Rec. VIII.* 675, 676.
- horse and cow manure, *Rec. V.* 142.
- humus, effect on nitrification, *Rec. IV.* 294.
- leather refuse, availability, *Rec. VI.* 24; *VII.* 290; *VIII.* 483.
- lupines at different dates, *Rec. V.* 700.
- manure, *Rec. V.* 147, 152, 153, 387.
- meats, *Rec. VI.* 965.
- plants as affected by water content of soil, *Rec. X.* 1023.
- poppy capsules, *Rec. VI.* 195.
- proteids, studies, *Rec. XI.* 510, 813.
- in rain water—
 - as affected by winds, *Rec. X.* 827.
 - of Java, *Rec. V.* 539.
- in soil as related to wheat rust, *Rec. VI.* 58.
- in soils—
 - amount furnished by red clover, *Rec. IX.* 738.
 - compounds of, *Rec. III.* 117.
 - conservation, *Rec. III.* 120, 578, 636, 750, 917; *V.* 15; *VII.* 682; *VIII.* 126, 679.
 - fixation, *Rec. IX.* 552.
 - investigations, *Rec. X.* 829.

Nitrogen—Continued.

- in soils—continued.
 - losses and gains, *Rec. V.* 5, 9, 10, 14, 156, 419.
 - of arid and humid regions, *Rec. VI.* 197, 794.
 - France, *Rec. V.* 902.
 - rise and fall, *Rec. III.* 139, 895.
 - transformation, *Rec. VII.* 22, 99, 754; *VIII.* 385.
- in stable manure—
 - losses, *Rec. V.* 146, 151, 820.
 - value, *Rec. V.* 924, 1098; *X.* 834; *XI.* 435.
- in *Stellaria media*, *Rec. VI.* 202.
- straw and chaff, *Rec. X.* 515.
- sugar-beet leaves as affected by fertilizers, *Rec. VII.* 955.
- sugar cane, *Rec. VI.* 808.
- sulphate of ammonia and nitrate of soda, *Rec. VII.* 573.
- urine, *Rec. IV.* 70.
- in urine—
 - loss, *Rec. VII.* 198, 292, 755; *IX.* 34.
 - loss in drying, *Rec. XI.* 1005.
- in wine, *Rec. X.* 315, 515.
- loss—
 - during putrefaction, *Rec. IV.* 875.
 - from feces in drying, *Rec. XI.* 1005.
 - urine in drying, *Rec. XI.* 1005.
- in decaying organic matter, loss, *Rec. VII.* 198.
- drainage water of cultivated soils, *Rec. IV.* 684.
- drying sheep manure, *Rec. V.* 28.
- drying silage, *Rec. V.* 28.
- drying steer manure, *Rec. V.* 28.
- manure, *Rec. IV.* 614, 686, 783; *VII.* 29, 682, 760; *X.* 132, 133, 731.
- nitrogenous superphosphates, *Bul. 2, II.* 68.
- sterilized soil, *Rec. VIII.* 478.
- losses in air-drying fermentable substances, *Rec. V.* 28.
- manuring, *Rec. IX.* 436.
- metabolism—
 - as affected by atmospheric pressure, *Rec. IX.* 275.
 - affected by beer, *Rec. IX.* 163.
 - affected by milk charged with carbon dioxid and normal milk, *Rec. IX.* 275.
- in the animal body, *Bul. 2, I.* 158; *Rec. VIII.* 321, 616.
- of, *Rec. XI.* 374.
- of cows, *Rec. V.* 524.
- horse, *Rec. X.* 496.
- steers, *Rec. IV.* 70.
- nitric. (*See* NITRATES.)
 - v.* ammoniacal nitrogen, *Rec. XI.* 831.
- nonalbuminoid in corn, *Rec. II.* 399.
- nutrition of plants, *Rec. X.* 1011.
- organic—
 - as a fertilizer, *Rec. XI.* 134.
 - assimilation by plants, *Rec. XI.* 316.
 - availability in fertilizers, *Rec. V.* 511; *VI.* 130; *VII.* 191; *VIII.* 387; *IX.* 540, 637; *XI.* 328, 720; *XII.* 224, 932.
 - nitrification, *Rec. XII.* 115, 722.
 - v.* mineral, for grapes, *Rec. V.* 1095.
- problem, notes, *Rec. XI.* 911.

Nitrogen—Continued.

- question, Rec. VII, 17, 83.
- question, contributions to, Rec. IV, 518, 871; VIII, 29.
- relation—
 - of amounts in fertilizers and in crop, Rec. I, 62.
 - to chlorids during digestion, Rec. XII, 587.
- salts, production in crater of Vesuvius, Rec. XII, 717.
- source in fertilizers, Bul. 2, II, 44.
- sources, Rec. XII, 736.
- supply—
 - increase and conservation, Rec. VI, 133.
 - influence on plant growth, Rec. VII, 836.
- total, determination in peptic digestion, Rec. XI, 971.
- utilization by plants, Rec. XI, 547.
- valuation, Rec. I, 131.

Nitrogenous—

- compounds—
 - exhaled by arable soils, Rec. III, 118.
 - formation in plants, Rec. VIII, 669.
 - in humus, Rec. III, 655.
 - soils and peat, Rec. X, 1031.
 - nomenclature, Rec. X, 712.
 - of wheat, Rec. X, 943.
- constituents of—
 - beer and wort, Rec. VI, 377.
 - sugar-beet juice, Rec. VIII, 976.
 - sugar-cane juice, Rec. VII, 645.
- feeding stuffs, artificial digestion, Rec. VII, 553; XI, 971.
- fertilizers—
 - availability of nitrogen. (See NITROGEN, AVAILABILITY.)
 - comparison of different forms, Rec. XII, 228.
 - effect on composition of potatoes, Rec. XII, 938.
 - effect on protein in barley, Rec. XII, 43.
 - effect on protein in grasses and legumes, Rec. XI, 723.
 - experiments, Rec. IV, 449, 783.
 - for barley, Rec. III, 780; 921; VIII, 688.
 - beets, Rec. X, 636, 936.
 - corn, Bul. 2, II, 149; Rec. III, 463; V, 862.
 - cotton, Bul. 2, II, 154; Rec. II, 149.
 - forest trees, requirements, Rec. X, 1046.
 - grasses, Rec. V, 578, 852.
 - hemp, best form, Rec. II, 146.
 - leguminous plants, Rec. V, 254, 835, 849, 950.
 - lupines, Rec. V, 850; VI, 887.
 - oats, Bul. 2, II, 143; Rec. I, 147; III, 158; V, 574, 925; VIII, 688; XI, 539, 836.
 - peas, Rec. X, 636.
 - rye, Rec. XI, 526.
 - soy beans, Rec. V, 170.
 - sugar beets, Rec. V, 853.
 - sugar cane, Rec. I, 67.
 - tobacco, best form, Rec. II, 226.
 - various crops, Rec. V, 1070.
 - wheat, Rec. IV, 342; V, 186; VI, 414.

Nitrogenous—Continued.

- fertilizers—continued.
 - for winter grains, Rec. III, 655.
 - winter rye, Rec. VII, 297.
 - of commerce, Rec. VI, 798.
 - on acid soils, Rec. X, 735, 937.
 - study, Rec. IV, 692.
 - tests, Rec. XI, 441.
- materials, analyses, Bul. 2, I, 22.
- matter—
 - formation in plants, Rec. VII, 921.
 - in grape must, Rec. IV, 616.
 - the soil, rise and fall, Rec. III, 139, 895.
 - wheat and oat straw, Rec. V, 145.
- organic—
 - bases, examination, Rec. VII, 553.
 - compounds, reactions, Rec. IV, 612.
 - substances, decomposition, Rec. VIII, 875.
- products formed by combustion in air, Rec. V, 1026.
- substances—
 - elementary analysis, Rec. IV, 313.
 - of manure, origin, Rec. V, 150.
- superphosphates and guanos, analyses, Rec. XI, 719.
- Nitrometer for determining nitric nitrogen, Rec. V, 728.
- Nitrose bacterium, new growth, Rec. IX, 627.
- Noctua—
 - bicirnea*, notes, Rec. VIII, 66.
 - clandestina*, notes, Rec. VI, 915; VIII, 65, 66, 241.
 - enigra*, notes, Rec. IX, 370.
 - femica*—
 - notes, Rec. IV, 839; IX, 150; X, 165, 766; XII, 368.
 - remedies, Rec. XI, 862.
 - flavicornis*, notes, Rec. VIII, 711.
 - geniste*, notes, Rec. VIII, 711.
 - vestigialis*, notes, Rec. VIII, 69.
- Noctuid larvæ, notes, Rec. III, 54.
- Noctuidæ—
 - in boreal America, Rec. V, 740.
 - North American, description of larvæ, Rec. XI, 265.
 - of Death Valley, Rec. V, 328.
 - species, notes, Rec. I, 45.
- Nodes—
 - and internodes of sugar cane, study, Rec. VI, 17.
 - elongation, Rec. X, 725.
 - geotropic curving, Rec. VI, 786.
 - in the lungs, Rec. VIII, 524.
- Nodonota—
 - puncticollis*. (See ROSE LEAF BEETLE.)
 - tristis*, notes, Rec. XI, 366.
- Nodular disease of sheep, studies, Rec. XII, 598.
- Nodules, hepatic and pulmonary, of horses, Rec. IX, 497.
- Noe's wheat, resistance to lodging, Rec. III, 928.
- Nola metallopa*, notes, Rec. XII, 367.
- Nolophana malana*, notes, Rec. IX, 662.
- Nomada imbricata*, notes, Rec. IX, 574.
- Nomenclature—
 - of infectious diseases, Rec. IX, 497.
 - milk albuminoids, Rec. IV, 781; V, 950.
 - nitrogenous compounds, Rec. X, 712.
 - veterinary myology, Rec. XI, 285.
 - scientific, in natural history, Rec. XII, 830.
 - vegetable, reform, Rec. II, 266; X, 1044.

- Nomius pygmaeus*, notes, Rec. X, 63, 570.
Nomophila noctuella, notes, Rec. V, 101; VI, 313.
 Nonesuch, root system, Rec. IV, 46.
 "Nonpoisonous bug destroyer," analyses, Rec. VI, 317.
 Nonsugars—
 in sugar-cane juice, Rec. VII, 647.
 nonnitrogenous, Rec. VII, 365.
 relation to sugar manufacture, Rec. X, 897.
 Normandy cattle, notes, Rec. XI, 983.
 North American—
 agriculture, notes, Rec. II, 139.
 dipterology, bibliography, Rec. VII, 699.
 fauna, Rec. VI, 787; VIII, 960, 961; IX, 924.
 flora, geological origin, Rec. VI, 617.
 fungi, new, Rec. VII, 468.
 Gomphinae, studies, Rec. IX, 372, 1069.
 Gramineae, anatomy, Rec. VII, 277, 925; VIII, 380.
 Hyphomycetes, rearrangement, Rec. VIII, 380.
 Indians, food plants, Rec. VII, 63.
 Orthoptera, Rec. VIII, 1002.
 scolytid beetles, synonymy, Rec. VIII, 1002.
 Sesliidae, new species, Rec. IX, 1070.
 weeds and forage plants, structure of seeds, Rec. V, 667.
 North Carolina, mountain stations in, Rec. IX, 814.
 North Louisiana, geology, Rec. V, 282; VIII, 382.
 North Wales University College, courses of instruction, Rec. IV, 755.
 North Wales, university extension work in agriculture, Rec. IV, 786.
 Northern—
 hair grass as a forage plant, Rec. III, 51.
 lupine as a forage plant, Rec. III, 51.
 Northerns in the Caribbean Sea and Gulf of Mexico, Rec. X, 1018.
 Norway—
 agricultural colleges in, Rec. IX, 703.
 control stations, reports, Rec. X, 90, 791.
 Department of Agriculture, report, Rec. V, 441; IX, 298; X, 98, 798; XI, 799.
 Society for Norway's Weal, report, Rec. VI, 756; IX, 1098.
 Norwegian seed control, report, Rec. XI, 56.
 Nor'westers of Canterbury, Rec. VIII, 111.
Nostoc punctiforme, growth in darkness, Rec. X, 725.
 Nostrums for increasing yield of butter, Rec. V, 218, 1053.
 Note—
 filing, Rec. IX, 999.
 taking in experimental horticulture, Rec. VIII, 556.
Nothris maligemmella, notes, Rec. X, 564.
Nothrus sp., as a parasite of the gypsy moth, Rec. III, 869.
Notolophus leucostigma. (See TUSsock Moth, WHITE-MARKED.)
Notonecta undulata, notes, Rec. VI, 236.
Notoncus—
 anchora, notes, Rec. VI, 652.
 monocerus, notes, Rec. VII, 792.
 Nova Scotia—
 agricultural—
 college and experimental farm, Rec. X, 1000.
 investigations, Rec. IV, 108.
Novius—
 cardinalis, parasitic on *Icerya purchasi*, Rec. X, 1062.
 koebele—
 importation into California, Rec. XI, 558.
 notes, Rec. VI, 741.
 Noxious animals, extermination, Rec. IX, 528.
 Nozzle tester, new form, Rec. IV, 564.
 Nozzles, spray, tests, Rec. XII, 578.
 Nuclear—
 and cell division in—
 asci, Rec. VIII, 957.
 Sphacellariaceae, Rec. VIII, 957.
 division—
 and fruiting in *Basidiobolus ranorum*, Rec. VIII, 957.
 spore formation in the ascus, Rec. VII, 748.
 in Basidiomycetes, Rec. X, 321.
 Chara fragilis, Rec. VIII, 957.
 circulating protoplasm, Rec. X, 321.
 dicotyledons and monocotyledons, Rec. VIII, 957.
 Hemerocallis fulva, Rec. VIII, 957.
 plants, Rec. VII, 839, 926; VIII, 957.
 Triticum, Rec. IX, 328.
 investigation, Rec. VI, 873.
 of Hymenomycetes, Rec. V, 650.
 without cell division, Rec. VII, 748.
 phenomena, studies, Rec. VIII, 205.
 structure, Rec. X, 417.
 Nuclei—
 of bacteria, Rec. XII, 722.
 the Uredineae, Rec. VII, 277, 466.
 yeast cells, Rec. V, 618.
 yeasts, studies, Rec. X, 123.
 suppression, Rec. IX, 526.
 Nucleic acids of wheat germ, studies, Rec. XII, 512.
 Nuclein—
 in cows' milk, Rec. IV, 987; V, 246, 949.
 human milk, Rec. IV, 987; V, 246.
 pepsin digestion of casein, Rec. VI, 1023.
 investigation, Rec. III, 748.
 studies, Rec. X, 313.
 vegetable study, Rec. IV, 870.
 Nucleoli and centrosomes, Rec. VI, 280.
 Nucleolus, chemistry, structure and physiology, Rec. VII, 277.
 Nucleones, solubility in salt solutions, Rec. XI, 706.
 Nucleo-proteids, investigations, Rec. VI, 14.
 Nucleus—
 and nuclear bodies in meristematic tissues, Rec. VII, 748.
 division in plant cell, Rec. VIII, 470.
 form, structure, and division, Rec. VII, 466.
 individual functions, Rec. V, 818.
 physiology, Rec. IX, 624.
 studies, Rec. VIII, 867.
 Nukamiso, notes, Rec. VII, 700.
 Nummularia, synopsis of species, Rec. I, 169.

Nun moth. (See LYMANTRIA MONACHA.)

Nuremberg, food laboratory, report, Rec. VIII, 530; IX, 991.

Nurse crops for grass lands, Rec. XI, 140.

Nurseries as factors in the distribution of insect pests, Rec. VI 654.

Nursery—

book, Rec. VIII, 602.

cuttings, planting, Rec. XI, 51.

fumigation, Rec. XII, 273, 369.

inspection, Rec. X, 269, 470, 712, 1068, 1099; XI, 170, 270, 275, 368, 657, 867, 958.

inspection—

and care, Rec. XII, 581.

in Illinois, Rec. XII, 1058.

Montana, Rec. XI, 659.

Ontario, Rec. XI, 558.

law, Rec. XII, 467, 975.

stock—

analyses, Rec. IV, 253.

Bordeaux mixture for leaf diseases, Rec. VI, 302.

diseases, treatment, Rec. IV, 500, 955; VI, 60, 432, 556; VII, 141; IX, 62.

draft on soil, Rec. VI, 50.

experiments, Rec. V, 1075.

imported, insects affecting, Rec. VI, 567.

infested, treatment, Rec. X, 468.

insects affecting, remedies, Rec. VII, 141; IX, 62; X, 269, 440.

leaf blight, fungicides for, Rec. VI, 556.

management, Rec. IV, 563.

national inspection law, Rec. XI, 764.

protecting from excessive cold, Rec. XI, 931.

protection in winter, Rec. XI, 548.

root injured, experiments in pruning and banking, Rec. XI, 549.

root killing, Rec. XI, 244.

treatment for injuries by rabbits, Rec. X, 963.

Nurseryman, variety test by, Rec. IX, 139.

Nut— (See also NUTS.)

galls, mid-European, Rec. VII, 530.

grass—

eradication, Rec. IX, 142; XI, 750.

notes, Rec. VI, 554, 823; X, 1048, 1049; XI, 858.

mite, notes, Rec. VI, 317.

oils, analyses, Rec. XII, 516.

Nutmeg—

culture in the Dutch East Indies, Rec. XI, 1048.

fruit, dehiscence, Rec. XI, 121.

melon, analyses, Rec. IV, 59.

trees, grafting, Rec. XI, 548.

Nutmegs—

adulteration, Rec. XII, 108.

insects affecting, Rec. VII, 413.

Nutrient starch jelly as a culture medium, Rec. X, 1014.

Nutrients—

digested by—

rabbits, Rec. V, 532.

sheep, Rec. V, 532.

digestible, in dairy products, Rec. V, 499.

in corn at different cuttings, Rec. V, 977.

Nutrients—Continued.

in the animal body, metabolism, Rec. VII, 538.

of food and their uses in the body, Rec. VIII, 329.

plant, loss, Rec. V, 453.

Nutritone—

analyses, Rec. VI, 153, 931; VIII, 331; IX, 682.

as a feeding stuff, Rec. VIII, 72.

for cows, Rec. IX, 881.

Nutrition—

and laws of growth of plants, Rec. V, 749.

metabolism of Italian peasants, Rec. V, 1031.

the nervous system, Rec. VII, 708.

vegetarian cookery, Rec. VIII, 1014.

as affected by intestinal bacteria, Rec. X, 885.

chemistry, Rec. VII, 523.

chemistry of, manual, Rec. XI, 482.

disturbed, Rec. VII, 838.

excessive, Rec. IX, 1079.

experiments with green plants, Rec. VII, 656.

history, Rec. VI, 752.

importance of—

fat in, Rec. IV, 986; V, 438.

salts in, Rec. VIII, 537.

influence on evolution of plants, Rec. X, 23.

intracellular, Rec. VII, 467.

investigations— (See also DIETARY, FOOD, METABOLISM, etc.)

in California, Rec. XII, 677.

Russia, Rec. IX, 201.

United States, summary, Rec. X, 481.

of the Department of Agriculture, Rec. XII, 476.

of fungi, Rec. VII, 659, 839.

herbivora, asparagin for, Rec. V, 438, 532.

insectivorous plants, Rec. VIII, 564.

Leguminosae, Rec. VIII, 109.

of man—

and animals, Rec. X, 481.

in health and disease, Rec. VIII, 331.

of plants, Rec. VI, 968; VIII, 957; X, 1013.

of plants—

arsenic acid for, Rec. IX, 1028.

as affected by grafting, Rec. XI, 344.

asparagin in, Rec. VII, 655.

atmospheric ammonia in, Rec. VIII, 29.

glycerin in, Rec. VI, 873.

Mycorrhiza in, Rec. V, 923.

principles, Rec. III, 314.

strontium in, Rec. V, 539, 698.

Nutritive—

ratio—

effect on milk and butter production, Rec. VII, 604; VIII, 823.

of rations for pigs, Rec. II, 647; III, 155, 156.

value—

of potatoes, Rec. IX, 263; X, 74; XI, 73.

sterilized milk, Rec. VIII, 719.

Nutrium, a new skim milk product, Rec. XII, 780.

Nuts— (See also NUT.)

adapted to North Carolina, Rec. VI, 547.

and acorns, germination, as affected by age, Rec. VI, 550; VII, 407.

as food, Rec. XII, 898.

Nuts—Continued.

- as food in foreign countries, Rec. X, 779.
- bearing trees, notes, Rec. VII, 134.
- bleaching by dipping, Rec. VIII, 788; X, 255.
- culture, Rec. IX, 650, 842.
- culture in United States, Rec. VIII, 229.
- fertilizer experiments, Rec. XI, 341.
- food value, Rec. VIII, 788, 986.
- for culture in United States, catalogue, Rec. IX, 648.
- germination as affected by age, Rec. VII, 407.
- growing for food, Rec. VIII, 986.
- native, Rec. X, 48.
- notes, Rec. III, 599; V, 681; VI, 424; X, 547.
- palm, fat content, Rec. VI, 754.
- physical analyses, Rec. XI, 872.
- varieties, Rec. II, 372; III, 701; V, 190, 299; VI, 55; IX, 244; XI, 1036.

Nycteribidæ, host animals, Rec. VIII, 613.

Nyctitropic movements, studies, Rec. IX, 1027; X, 121.

Nymphæacæ studies, Rec. VI, 279.

Nysius—

- angustatus*, notes, Bul. 2, I, 31; Rec. I, 12; II, 81, 664, 720, 734; III, 784; VI, 150; X, 169.
- vinitor*, notes, Rec. XII, 1067.

Nyssa sylvatica, notes, Rec. VIII, 604.

Nysson inhabiting America north of Mexico, Rec. VIII, 712.

Oak— (*See also* QUERCUS.)

bark—

- extract, ash analyses, Rec. X, 219.
- weevil, notes, Rec. VII, 880; IX, 858.
- black, notes, Rec. II, 741; III, 521.
- bur, notes, Rec. II, 741; III, 521; IV, 655; VIII, 604.
- carpenter worm, notes, Rec. IX, 964, 1065; X, 68.
- caterpillars, notes, Bul. 2, I, 179; Rec. II, 64; III, 291; XI, 564.
- cork, production, Rec. X, 53.
- disease resembling apple-tree canker, Rec. XII, 650.
- forests, estimation of yield, Rec. XII, 653.
- gall wasps, Rec. IX, 1071.
- hybrids, Rec. VII, 36.
- in beech forests, Rec. XII, 653.

laurel—

- notes, Rec. III, 521.
- scale insect, Rec. VI, 564.

leaf blight, notes, Rec. XI, 552.

leaves—

- analyses, Rec. I, 80; II, 550, 581.
- for cattle, Rec. V, 264.
- litter, absorptive power, Rec. V, 144.
- persistence under influence of blue rays, Rec. XI, 907.

loopers—

- natural enemies, Rec. III, 359.
- notes, Rec. III, 359; V, 631.
- repression, Rec. III, 359.

moss, analysis, Rec. XII, 282.

nuts, Rec. VIII, 231. (*See also* ACORNS.)

occurrence and growth, Rec. VI, 223.

physiology, Rec. V, 650.

plantations, management, Rec. XI, 1050.

poison, notes, Rec. III, 598; IV, 47; IX, 527; X, 516.

Oak—Continued.

post—

- ash analyses, Rec. I, 26.
- new, Rec. VII, 36.
- notes, Rec. III, 521.

pruner, notes; Rec. IX, 664; X, 569, 1066; XI, 762.

red—

- ash analyses, Rec. I, 26.
- notes, Rec. III, 521; IV, 655; VII, 961; VIII, 314; IX, 844.
- wood of, Rec. VII, 775.

root parasite, notes, Rec. VI, 1000; XII, 658.

scale, Rec. IX, 69.

scale, remedies, Rec. VIII, 418, 805.

scarlet, notes, Rec. III, 521; IV, 655; IX, 844.

scrub, notes, Rec. III, 521.

stumps, *Agaricus melleus* on, Rec. VI, 427.

timber—

- preservation against worms, Rec. X, 1046.
- production, Rec. XII, 454.
- structure and properties, Rec. VI, 56.

trees—

- notes, Rec. II, 512.
- rate of growth, Rec. IV, 45.

white—

- ash analyses, Rec. I, 26.
- notes, Rec. I, 315; III, 521; IV, 655, 829; V, 1104; VII, 961.
- rejuvenescence, Rec. IX, 453.
- swamp, notes, Rec. VII, 961.

weevil, food plant, Rec. IV, 437.

wood extract, analysis by hide-powder method, Rec. VII, 920.

worm, orange-striped, Rec. IV, 838.

Oaks—

- American, Rec. X, 53.
- American, in Campine, Rec. IX, 844.
- ancient pollard, Rec. XII, 455.
- care, Rec. VII, 961.
- for ornamental purposes, Rec. VII, 772, 773; VIII, 314.
- reforestation in France, Rec. XII, 757.
- growth as affected by frost, Rec. IX, 756.
- insects affecting, Rec. VIII, 70.
- planting for timber, Rec. XII, 955.
- Polyporus sulphureus* on, Rec. XII, 958.
- pruning in midsummer, Rec. VI, 426.
- sun and frost cracks on, Rec. VI, 144.
- transplanting, Rec. XII, 958.

Oat—

and barley—

- hay for cows, Rec. VI, 468.
- silage for cows, Rec. VI, 453.
- and corn feed, analysis, Rec. III, 13.
- fine rowen hay, digestibility, Rec. XI, 874.

and pea fodder—

- analyses, Rec. V, 596; IX, 786; XI, 882.
- digestibility, Rec. VIII, 423; XI, 874.

and pea forage—

- analyses, Rec. IV, 724.
- for pigs, Rec. II, 736.

and pea hay, digestibility, Rec. XII, 873.

and pea silage—

- analyses, Rec. V, 195; VI, 331.
- heat of combustion, Rec. XII, 873.

aphis, notes, Rec. IX, 458.

Oat—Continued.

- blight, notes, Rec. V, 607.
- bran, analyses, Rec. I, 15; XI, 883, 971.
- canker disease due to *Agloaspora taleola*, Rec. V, 926.
- cecidiomyid, new, Rec. VII, 315, 880.
- chaff—
 - analyses, Rec. II, 579; XI, 279.
 - digestibility, Rec. VII, 154.
- crown rust, Rec. XI, 943. ✓
- disease, notes, Rec. II, 303; III, 161.
- dust—
 - analyses, Rec. IV, 174; VI, 110; XI, 873.
 - feed, analyses, Rec. II, 565.
- feed—
 - analyses, Rec. II, 232, 565; III, 878; IV, 174, 935; V, 194, 316, 992; VI, 163, 331, 444, 1008, 1023; VII, 326; VIII, 331, 426, 810; IX, 682, 809; X, 276; XI, 279, 883; XII, 70, 169, 281, 282, 472, 587, 877.
 - cooked, analyses, Rec. VI, 331.
 - description, Rec. XI, 971.
 - for cows, Rec. V, 316; XII, 678.
 - ground, analyses, Bul. 2, I, 83.
 - Quaker, analyses, Rec. XI, 279, 777, 882, 971.
 - Quaker, digestibility, Rec. XI, 566, 874; XII, 171, 873.
 - v. corn meal for pigs, Rec. IX, 375.
- feeds, digestibility, Rec. XII, 171, 873.
- fodder—
 - analyses, Rec. IX, 786.
 - green, as a soiling crop, Rec. V, 992.
- foods, analyses, Rec. X, 475.
- grains, analyses, Rec. XI, 617.
- grass—
 - analyses, Rec. III, 629; V, 596; VI, 444.
 - meadow. (See MEADOW OAT GRASS.)
 - notes, Rec. VI, 635; XII, 936.
 - seed, tall, viability, Rec. XI, 158.
 - smut, studies, Rec. XII, 356.
 - tall, adaptation, Rec. III, 595.
 - tall, analyses, Rec. II, 329; VI, 403, 568; VIII, 81; XII, 471.
 - tall, as a forage plant, Rec. III, 28, 29.
 - tall, culture experiments, Rec. I, 121; II, 632; VIII, 687; X, 244, 245.
 - tall, for meadows and pastures, Rec. II, 238; III, 398.
 - tall, meadow. (See MEADOW OAT GRASS.)
 - tall, notes, Rec. I, 83, 320; II, 69, 271, 329, 594, 601, 740; V, 577; VI, 97, 215, 721.
 - wild, analyses, Bul. 2, II, 51; Rec. II, 644.
 - wild, digestibility, Bul. 2, II, 55, 61.
 - wild, notes, Rec. VII, 384.
 - yellow, culture experiments, Rec. VI, 296.
 - yellow, notes, Rec. II, 594; V, 871, 910.
- hay—
 - analyses, Rec. II, 243, 589, 606; IV, 732; VI, 444, 1008; VII, 614; VIII, 426; IX, 786; XI, 883, 971; XII, 478.
 - composition at different stages of maturity, Rec. XI, 965.
 - digestibility, Rec. IV, 976; VII, 317; XI, 965.
 - effect of different fertilizers on feeding value, Rec. XI, 1072.

Oat—Continued.

- hay—continued.
 - for cows, Rec. II, 667.
 - heat of combustion, Rec. XII, 873.
- hull ashes, analyses, Rec. VI, 402.
- hulls, analyses, Rec. III, 878; V, 794; VI, 931, VII, 396; VIII, 719; XI, 617.
- hulls, ground, analyses, Rec. XI, 971.
- leaf blight, Rec. VII, 690.
- leaf louse, Rec. V, 821.
- loose smut—
 - destruction of spores by formaldehyde, Rec. XII, 457.
 - notes, Rec. II, 342, 637, 638; III, 285; IV, 50; VI, 560; XII, 355.
 - studies, Rec. XII, 355.
- meal—
 - by-products, analyses, Rec. XI, 1076.
 - dust, analyses, Rec. XI, 873.
- middlings—
 - analyses, Rec. I, 15; VIII, 1004; XI, 971.
 - cost and valuation, Bul. 2, I, 53.
- plant, respiration and transpiration experiments, Rec. VII, 464.
- rust—
 - as affected by time of seeding, Rec. VIII, 268, 795.
 - notes, Rec. II, 4, 6, 7; IV, 414; VI, 307.
 - treatment, Rec. VI, 435.
- screenings, analyses, Rec. XI, 873.
- shorts, analyses, Rec. IV, 174; XI, 873.
- smut—
 - as affected by change of soil, Rec. IX, 42.
 - as affected by time of seeding, Rec. VIII, 268, 795.
 - culture experiments, Rec. VII, 693.
 - fungicides for, Rec. II, 639; VIII, 268.
 - hidden, detection, Rec. II, 639.
 - hidden, notes, Rec. II, 638.
 - hidden, studies, Rec. XII, 355.
 - hyposulphite of soda for, Rec. II, 639.
 - in Vermont, Rec. VI, 487; VIII, 993.
 - loose, notes, Rec. II, 637; XI, 314.
 - loss from, Rec. V, 59; VI, 908.
 - natural enemies, Rec. I, 216.
 - notes, Rec. II, 342, 581, 637, 638, 740; IV, 50, 414, 729; V, 59; VI, 147, 560; VII, 28.
 - prevalence, Rec. III, 892.
 - prevention, Rec. V, 59, 402; IX, 62, 446; X, 453, 740; XI, 162, 944.
 - propagation, Rec. II, 641.
 - treatment, Rec. I, 209, 216; II, 33, 173, 639; III, 285, 479, 889; IV, 251, 352, 471; V, 308, 685, 779, 1072; VI, 436, 557, 559; VII, 789; VIII, 44, 238, 240, 606; IX, 143, 363, 830, 847, 1060; X, 344, 361, 453, 740, 762; XI, 356; XII, 537, 1052.
 - treatment with formalin, Rec. XII, 855, 859.
 - treatment with hot water, Rec. I, 216; II, 637, 640; III, 226, 286, 791, 806, 892; V, 59, 308; VI, 308, 557, 559; VII, 589; VIII, 44, 606; IX, 145, 1060; XI, 944.
- straw—
 - analyses, Rec. II, 50; III, 296, 318, 379; IV, 733; V, 145, 596, 631, 794; VI, 752, 1008; VIII, 81; X, 678; XII, 471.

Oat—Continued.

straw—continued.

- and vetches for cows, *Rec. VII*, 64.
- composition, *Rec. IX*, 981.
- digestibility, *Bul. 2, I*, 61, 132; *Bul. 2, II*, 43; *Rec. VII*, 149; *IX*, 476.
- digestibility of protein in, *Bul. 2, II*, 61.
- fertilizing constituents, *Bul. 2, I*, 133.
- for cows, *Rec. VII*, 523, 616.
- horses, *Rec. VII*, 802.
- fuel value, *Rec. XII*, 1072.
- gum in, *Rec. V*, 145.
- litter, absorptive power, *Rec. V*, 144.
- silage, analyses, *Rec. VIII*, 331.

weevil, notes, *Rec. IV*, 437."Oatena," analyses, *Rec. X*, 276; *XI*, 971.

Oatmeal—

- analyses, *Rec. IV*, 59; *V*, 64; *VI*, 1023.
- copper in, *Rec. II*, 324.
- in health and disease, *Rec. VIII*, 719.
- refuse, analyses, *Rec. VI*, 331.

Oats—

- acreage in Great Britain, 1891-92, *Rec. IV*, 521.
- albuminoids in, *Rec. III*, 766.
- Alinit experiments, *Rec. XII*, 338, 739.
- ammonium sulphate for, *Rec. V*, 1030; *IX*, 44.
- analyses, *Bul. 2, II*, 73, 156; *Rec. I*, 15, 197; *II*, 50, 170, 243, 315, 589, 645; *III*, 296, 318, 378, 410, 655, 822, 878, 890; *IV*, 175, 733; *V*, 194, 410, 482, 596, 631; *VI*, 36, 163, 274, 331, 534, 569, 752, 931, 1008; *VII*, 63, 210, 296, 336, 396, 497, 614, 702; *VIII*, 426, 508, 884, 1004; *IX*, 786, 873; *X*, 678; *XI*, 279, 777; *XII*, 70, 139, 281, 378, 471, 587, 877, 907.

and clover, fertilizer experiments, *Rec. X*, 750.corn, analyses, *Rec. III*, 878.

and peas—

- analyses, *Rec. III*, 375, 401; *IV*, 470; *VIII*, 426, 508; *X*, 474; *XI*, 777, 883; *XII*, 378, 442.
- culture experiments, *Rec. IV*, 140; *V*, 171, 178; *VIII*, 970; *XI*, 43.
- digestibility, *Rec. XI*, 566.
- fertilizer experiments, *Rec. IV*, 470.
- for cows, *Rec. X*, 295.

soiling, *Rec. IV*, 29, 480, 724; *XI*, 688.and rape, fertilizer experiments, *Rec. VI*, 419.rye, mixed seeding, *Rec. VIII*, 125.

and vetch—

- analyses, *Rec. III*, 153, 157, 375, 401; *IV*, 66; *V*, 195, 596.
- culture experiments, *Rec. V*, 171; *XI*, 43.
- digestibility, *Rec. XI*, 566.
- for pigs, *Rec. II*, 676.

soiling, *Rec. II*, 580; *III*, 376; *IV*, 29, 65, 480; *V*, 1065; *XI*, 688.hay, digestibility, *Rec. XII*, 873.and wheat, *Rec. IV*, 145.and wheat, mixed seeding, *Rec. VII*, 862.as a cover crop, *Rec. X*, 340; *XI*, 1047.a soiling crop, *Rec. II*, 224; *III*, 130, 131, 790; *XII*, 45.

ash—

- analyses, *Rec. X*, 873; *XI*, 37.
- constituents, *Rec. III*, 890.

assimilation of carbonic acid by, *Rec. IV*, 613.

Oats—Continued.

Belgian black, *Rec. XI*, 540.black Russian, culture experiments, *Rec. VI*, 212.blighted, notes, *Rec. II*, 213.box experiments, *Bul. 2, II*, 46.breeding, *Rec. IX*, 638; *X*, 749.Canadian in India, *Rec. XI*, 144.characteristics of young plants, *Rec. XII*, 442.chemical—botanical studies, *Rec. VI*, 534.chopped, for pigs, *Rec. V*, 993.composition, *Rec. X*, 181.

composition—

- as affected by fertilizers, *Bul. 2, I*, 156; *Rec. III*, 379; *V*, 579.

at different stages, *Rec. IV*, 175.

condition—

and acreage, *Rec. III*, 53, 107, 183, 545.August, 1892, *Rec. IV*, 283.continuous culture, *Rec. VI*, 211.

cost—

and profit in growing, *Rec. V*, 576.of production, *Rec. X*, 540.crop of Hungary, 1899, *Rec. XI*, 698.statistics, *Rec. VI*, 582.cross fertilization, *Rec. V*, 868; *X*, 750.crude phosphates for, *Rec. IV*, 131.

crushed—

analyses, *Rec. II*, 589.for cows, *Rec. II*, 592.culture, *Bul. 2, I*, 66; *Rec. III*, 387; *VI*, 45, 542; *X*, 736; *XI*, 642.

culture—

- experiments, *Bul. 2, I*, 64, 70; *Rec. I*, 19; *IV*, 108, 140, 145, 346, 647, 815, 825; *VI*, 215, 296, 405, 408, 632, 886, 983; *VII*, 122, 497, 764, 945, 946; *VIII*, 308, 588; *X*, 43, 453, 1036; *XI*, 42, 540; *XII*, 134, 430, 535, 1036, 1038, 1039.

in Norway, *Rec. VIII*, 124.principles, *Rec. III*, 927.cultivation *v.* no culture, *Rec. II*, 224.damaged, analyses, *Rec. V*, 194.decline of yield, *Rec. II*, 214.development as affected by soil, moisture, and fertility, *Rec. X*, 737.digestibility, *Rec. IV*, 976; *V*, 811; *VI*, 223; *VIII*, 323; *IX*, 476; *X*, 76; *XI*, 566; *XII*, 873.digestibility as affected by heating, *Rec. VI*, 66.digestible matter in, *Rec. II*, 170.drilling *v.* broadcasting, *Rec. IX*, 830; *X*, 240, 344; *XI*, 629.

effect of—

atmospheric electricity, *Rec. VI*, 537.climate on size of grain, *Rec. XII*, 737.drought, *Rec. V*, 621.electricity on, *Rec. V*, 906.fertilizers on milling quality, *Rec. XI*, 1028.soil water, amount, *Rec. XII*, 45.effect on milk, *Rec. V*, 969.effect on quality of butter, *Rec. V*, 724.fat, investigations, *Rec. VI*, 965.feeding of new, *Rec. X*, 83.

Oats—Continued.

fertilizer experiments, *Bul.* 2, I, 72, 126, 165; *Bul.* 2, II, 47, 113, 143, 145; *Rec.* I, 147, 148, 187, 189, 215; II, 649; III, 129, 158, 294, 320, 378, 387, 400, 529, 589, 867, 888; IV, 129, 130, 131, 132, 145, 251, 346, 518, 861, 915, 965; V, 51, 167, 178, 233, 256, 291, 575, 579, 625, 701, 702, 709, 799, 925, 1030; VI, 291, 293, 409, 418, 519, 542, 720, 722, 889, 890; VII, 32, 117, 121, 122, 291, 397, 497, 575, 759, 759, 765, 942, 943; VIII, 119, 211, 393, 397, 402, 490, 491, 584, 590, 688, 778; IX, 44, 238, 550, 552, 830, 834; X, 33, 136, 236, 338, 733, 739, 750, 836, 846, 950, 1036, 1037; XI, 36, 332, 530, 539, 632, 836, 841, 842, 1027, 1028, 1036; XII, 127, 532, 537, 539, 547, 624, 627, 642, 839.

fertilizer requirements, *Rec.* VII, 210.

fertilizers for, *Rec.* V, 625.

fertilizers—

partial *v.* complete for, *Rec.* IV, 130.

residual effect of, *Rec.* VIII, 593.

fertilizing constituents, *Bul.* 2, I, 133; *Rec.* II, 170.

field experiments, *Bul.* 2, II, 44, 48, 57, 81, 112, 123, 143; *Rec.* II, 4, 6, 7, 21, 124, 132, 147, 167, 171, 222, 316, 351, 392, 395, 400, 520, 580, 636, 642, 663, 675; VII, 581.

floats *v.* Thomas slag for, *Rec.* I, 147.

for calves, *Rec.* III, 221.

colts, *Rec.* III, 391; IV, 574.

cows, *Rec.* II, 440, 592; III, 131; IV, 259; V, 1060; VI, 657; IV, 880; X, 295; XI, 780.

hay, *Rec.* V, 578; VI, 808.

hens, *Rec.* III, 36.

horses, *Rec.* IV, 742; V, 540; VII, 247, 802; VIII, 822; XI, 80.

pigs, *Rec.* II, 876; III, 130; IV, 483; V, 993.

sheep, *Rec.* V, 920; XII, 173, 588.

steers, *Rec.* III, 129, 391; V, 633.

French, composition, *Rec.* VI, 808.

from different parts of plant, *Rec.* VI, 536.

germination as affected by—

after ripening, *Rec.* XII, 458.

formaldehyde, *Rec.* XII, 457.

frost, *Rec.* I, 19.

hot water, *Rec.* V, 304.

potassium sulphid, *Rec.* V, 304.

rolling, *Rec.* IV, 121.

temperature, *Rec.* XI, 156.

treatment for smut, *Rec.* XII, 1050.

germination tests, *Bul.* 2, I, 30; *Rec.* I, 295; V, 628; XI, 158, 857; XII, 565.

gliadin in, *Rec.* III, 11.

globulins of, *Rec.* IV, 934.

gluten in, *Rec.* III, 11.

grading seed, *Rec.* III, 790.

green manuring, *Rec.* IX, 134.

green manuring with sweet clover for, *Rec.* V, 701.

ground—

analyses, *Rec.* II, 243, 645; III, 296, 410, 878; V, 631; VI, 274, 569, 931; X, 678; XI, 381; XII, 70, 281, 877.

and ground corn, analyses, *Rec.* XI, 279.

unground for pigs, *Rec.* IV, 483.

digestibility, *Bul.* 2, I, 132; *Rec.* X, 76.

for steers, *Rec.* V, 633.

Oats—Continued.

ground—continued.

v. bran for milk and butter production, *Rec.* II, 410.

wheat bran for cows, *Rec.* IV, 259; IX, 881.

grown as single plants, *Rec.* II, 224.

guano for, *Rec.* V, 779.

gypsum for, *Rec.* III, 262.

harvesting, *Rec.* IV, 817; VI, 35.

harvesting at different—

dates, *Rec.* III, 790; VIII, 44.

stages, *Rec.* II, 224.

in India, experiments, *Rec.* V, 333.

insects affecting, *Rec.* VI, 654; VIII, 507.

irrigation, *Rec.* IV, 211; VI, 86; XII, 40.

legumin in, *Rec.* III, 11.

light and heavy, analyses, *Rec.* III, 655, 822; VII, 497.

lime for, *Rec.* V, 779; VII, 858.

lodging, salt for, *Rec.* IX, 45.

milling value as affected by fertilizers, *Rec.* XI, 1028.

nematodes on, *Rec.* III, 308; V, 822; VI, 147.

Nitratin experiments, *Rec.* XII, 532.

nitrate of soda—

for, *Rec.* VI, 891.

v. sulphate of ammonia for, *Rec.* V, 233.

nitrogen content as affected by humus, *Rec.* IX, 444.

nitrogenous fertilizers for, *Bul.* 2, II, 143; *Rec.* III, 158; V, 574, 925; VIII, 688; XI, 539, 836.

notes, *Rec.* V, 612, 794, 844, 856, 871, 910; XI, 1037.

nutritive—

solution for sand culture, *Rec.* V, 774.

value, *Rec.* V, 811; XI, 73.

on soil treated with carbon bisulphid, *Rec.* VII, 32.

ortho-phosphoric acid in, *Rec.* V, 925.

packing soil, *Rec.* X, 343.

peas as a green manure for, *Rec.* IV, 131.

percentage of hull and kernel in grain, *Rec.* VII, 28.

phosphates for, *Bul.* 2, II, 145; *Rec.* I, 148; II, 649; IV, 129.

plowing for, *Rec.* III, 789; X, 343.

plowing to different depths, *Rec.* VI, 296.

pot experiments—

with feldspar, *Rec.* II, 649.

phosphates, *Rec.* II, 649.

production and distribution, *Rec.* IV, 845.

proteids or albuminoids, *Rec.* II, 304, 490; III, 11, 13, 766.

protein as affected by nitrogenous fertilizers, *Rec.* V, 579.

roasted, analyses, *Rec.* VI, 1023.

"rolled oats," analyses, *Rec.* VI, 1023.

root—

development, *Rec.* V, 482.

system, *Rec.* XI, 215; XII, 517.

rotation, *Rec.* IV, 346; VIII, 305; X, 739; XII, 233.

rusted, notes, *Rec.* II, 213.

salt as fertilizer for, *Rec.* III, 791.

seaweed as a fertilizer for, *Rec.* V, 779.

Oats—Continued.

seed—

- absorption of water, Rec. XI, 1056.
- distribution, Rec. V, 581.
- effect of maturity, Rec. III, 790.
- germination. (*See* OATS, GERMINATION.)
- grading, Rec. III, 790.
- maturity, Rec. III, 790.
- northern *v.* southern, Rec. III, 168.
- quality to sow, Rec. V, 1072.
- selection, Bul. 2, II, 57; Rec. X, 240; XI, 630; XII, 340.

seeding, Rec. II, 21, 132, 167, 222, 400, 520, 664; XI, 235.

seeding at different—

- dates, Rec. I, 203; IV, 816; V, 40, 623, 1072; VI, 35, 542; VII, 116, 119, 398; VIII, 44; IX, 42, 830, 833; X, 240, 344, 739, 836, 846.
- depths, Rec. I, 203; III, 779; IV, 816; VI, 35; VII, 119, 398.
- distances, Rec. XII, 132.
- rates, Bul. 2, II, 113; Rec. I, 202; III, 779, 790, 804; IV, 815; V, 39, 177, 1072; VI, 35, 138, 296, 409, 415; VII, 28, 32, 117; VIII, 44; IX, 42; X, 340.

seeding—

- broadcasting *v.* drilling, Rec. IX, 830; X, 240, 344; XI, 629.
- different sized grains, Rec. VII, 209; VIII, 44; IX, 42; X, 344; XII, 441.
- experiments, Rec. XII, 339.
- in compact *v.* loose seed beds, Rec. IV, 816.
- methods, Bul. 2, II, 146; Rec. II, 223; III, 789, 805; V, 679, 1072; VII, 28; VIII, 44, 488; IX, 42.
- mixed, Rec. XI, 235, 1037.
- mixed varieties, Rec. V, 1029.
- single varieties *v.* mixtures, Rec. II, 223; III, 790.
- with spring wheat, Rec. II, 401.
- shrinkage of straw and grain, Rec. VII, 28.
- sodium, amount in, Rec. III, 554.
- soil preparation—

for, Bul. 2, II, 84; Rec. III, 789; V, 39, 178, 1072; VI, 540; VIII, 44; IX, 42; X, 343; XI, 40.

thorough *v.* slack, Bul. 2, I, 149.

soil tests with, Rec. XI, 836.

subsoiling—

for, Rec. XII, 628.

v. surface plowing, Rec. X, 343.

supply of United Kingdom, Rec. X, 147.

surface *v.* subwatering, Rec. XII, 325.

Thomas slag and kainit for, Rec. VII, 497; VIII, 491.

turf, Rec. IX, 1048; X, 547.

valuation, Rec. X, 241.

varieties, Bul. 2, I, 30, 70, 103; Bul. 2, II, 11, 44, 57, 112, 123, 145; Rec. I, 69, 75, 87, 122, 143, 148, 189, 203, 210, 254; II, 4, 6, 7, 21, 29, 70, 132, 167, 171, 213, 224, 316, 351, 395, 402, 407, 520, 580, 663, 649, 675; III, 28, 82, 85, 167, 227, 320, 356, 360, 361, 386, 387, 453, 514, 536, 599, 625, 719, 743, 780, 785, 791, 802, 805; IV, 37, 108, 211, 251, 343, 411, 436, 590, 721, 816, 824, 863, 915; V, 42, 50, 178, 179, 623, 625, 679, 778, 870, 1029, 1072, 1073, 1074; VI, 36, 44, 138, 216, 293, 294, 409, 415, 416,

Oats—Continued.

417, 418, 419, 542, 543, 635, 716, 803, 807, 890, 898, 984; VII, 27, 116, 117, 120, 203, 209, 210, 299, 497, 579, 580, 581, 671, 759, 859, 947, 952; VIII, 44, 119, 223, 308, 402, 487, 490, 491, 687, 689, 775, 971; IX, 42, 131, 133, 347, 440, 741, 826, 829, 830, 832, 833; X, 41, 43, 236, 240, 340, 344, 538, 633, 634, 736, 738, 836, 846, 1034; XI, 42, 43, 145, 234, 332, 442, 629, 632, 842, 944, 1036; XII, 42, 134, 139, 229, 230, 234, 328, 442, 547, 629, 630, 849, 1036, 1039.

v. barley for horses, Rec. VIII, 822; XI, 80.

v. bran—

and ground wheat for horses, Rec. VII, 802.

shorts for horses, Rec. VII, 802.

v. brewers' grains for horses, Rec. IV, 742; V, 540.

horse bread for horses, Rec. VII, 247.

water—

required by, Rec. IV, 126; V, 484.

requirements, as affected by different fertilizers, Rec. XI, 923.

wild, Rec. X, 760.

wild—

eradication, Rec. VIII, 234, 703.

notes, Rec. III, 598; IV, 47, 591; V, 529, 581; VII, 135; X, 343.

winter, Rec. VII, 297.

winter—

acclimatization, Rec. XI, 241.

culture, Rec. X, 349, 636.

for grain and pasture, Rec. XII, 443.

in Iowa, Rec. XII, 640.

relation to wild oats, Rec. XII, 641.

varieties, Rec. XI, 442.

yield—

and value of, Rec. II, 608.

as influenced by character of seed, Rec. II, 223.

in Great Britain, Rec. III, 835.

the United States, Rec. III, 326.

per acre, Rec. II, 636, 675; IV, 431, 578; V, 328.

with different methods of seeding, Rec. II, 223.

Oberca—

bimaculata, notes, Bul. 2, II, 119; Rec. II, 420; III, 198; IV, 839; X, 63; XI, 63; XII, 166.

ocellata, notes, Rec. XI, 366.

Observatories, establishment, Rec. XII, 920.

Ocean—

currents—

study, Rec. V, 1087.

theory, Rec. XII, 1015.

storms, forecasting, Rec. V, 1087.

temperature as related to vegetation period, Rec. XI, 223.

temperatures and meteorology, Rec. X, 419.

tides, Rec. XII, 119.

Oceanic and seismic noises, Rec. X, 325.

Ocelli of insects, structure, Rec. XII, 973.

Ochroes—

analyses, Rec. IX, 129.

unripe, analyses, Rec. XI, 249.

Ochromyia, bibliography, Rec. XII, 867.

Ocnaria—

dispar. (*See* GYPSY MOTH.)

monacha. (*See* LYMANTRIA MONACHA.)

- Odonata—
 gizzards, Rec. VIII, 809.
 larval gills, Rec. VIII, 809.
 new species, Rec. IX, 370.
 of Ohio, catalogue, Rec. X, 166.
- Odonate nymphs from hot springs, Rec. IX, 574.
- Odonocytrum abyssinicum*, notes, Rec. IX, 1027.
- Odontocera dorsalis*, notes, Rec. VII, 229; X, 1059.
- Odontota—
dorsalis, notes, Rec. III, 47; VIII, 999; IX, 662, 664; X, 61; XI, 477, 952.
neriosa, notes, Rec. III, 47.
scutellaris, notes, Rec. V, 884.
- Odorless—
 bug killer for rose chafers, Rec. III, 171.
 phosphate. (See PHOSPHATIC SLAG.)
- Odors—
 absorption by warm and cold milk, Rec. XI, 581.
 of flowers, Rec. VIII, 55.
 the air, measurement, Rec. VII, 848.
- Odynerus—
foraminatus, notes, Rec. X, 1065.
rufobasilaris, notes, Rec. VII, 595.
spicicorvus, notes, Rec. VIII, 912.
- Oecanthus—
fasciatus, notes, Rec. XI, 472.
niveus. (See TREE CRICKET, SNOWY.)
- Oedoma—
cephalotes, notes, Rec. VI, 838.
ferrens, notes, Rec. IX, 370.
- Oecophora oleella*, notes, Rec. XI, 474.
- Oedmasia concinna*, notes, Rec. III, 198, 396; IV, 838; VII, 111; XII, 68.
- Oedermeridae of boreal America, Rec. IX, 774.
- Oedipoda venusta*, notes, Rec. III, 907.
- Oedipodinae, notes, Rec. IX, 470.
- Odocephalum albidum*, development, Rec. XI, 910.
- Oedomyces leproideus*, notes, Rec. VII, 787.
- Enanthe crocata*, botany, Rec. X, 360.
- Enophthira pilleriana*, notes, Rec. IX, 465.
- Enothera—
biennis—
 notes, Rec. V, 398, 399.
 root system, Rec. IV, 46.
cæspitosa, notes, Rec. III, 52.
fruticosa, analyses, Rec. III, 629.
missouriensis, notes, Rec. II, 607.
ovata, notes, Rec. III, 598; V, 592.
xylocarpa, notes, Rec. VI, 114.
- Enothera, etymology and naturalization, Rec. V, 434.
- Erebro, Sweden, Chemical and Seed Control Station, report, Rec. VI, 190, 224, 577; VIII, 117, 153, 173; IX, 380; X, 554; XII, 252.
- Esophagostoma columbianum*, notes, Rec. II, 79; IX, 274, 693, 994; XI, 986.
- Estridae—
 affecting domestic animals, Rec. XI, 1090.
 economic importance, Rec. XI, 564.
 European, Rec. IX, 472.
- Estrus—
 larva, development, Rec. VII, 880.
 larvæ, life history, Rec. VIII, 806.
- Estrus ovis*. (See SHEEP BOT FLY.)
- Ohio—
 Agricultural Students' Union, cooperative experiments, Rec. X, 350.
- Ohio—Continued.
 buckeye, notes, Rec. III, 521.
 plants, catalogue, Rec. VII, 468.
 Station, greenhouse, Rec. IV, 950.
- Oidium—
balsamii, notes, Rec. V, 881; VII, 700, 962.
erysiphoides, Rec. IV, 49, 50; IX, 624.
erysiphoides—
cucurbitarum, notes, Rec. III, 162.
 treatment, Rec. III, 619.
fructigenum, notes, Rec. VII, 220; XI, 164.
lactis—
 effect in ripening cheese, Rec. XI, 787.
 in milk, Rec. V, 919.
 notes, Rec. III, 424; V, 824, 1044.
monilioides, notes, Rec. IX, 624.
 sp., biology, Rec. VIII, 290.
tuckeri. (See GRAPE POWDERY MILDEW.)
- Oidium. (See GRAPE POWDERY MILDEW.)
- Oiketicus—
abbotii, notes, Rec. IX, 370.
macleani, notes, Rec. XI, 658.
- Oil—
 analysis—
 handbook, Rec. X, 821.
 Hubl's iodine method, Rec. XII, 21.
 methods of, Rec. XII, 1007.
 and resin ducts, origin, Rec. IV, 870.
 bearing seeds, Rec. VIII, 795.
 bearing seeds—
 germination, Rec. VII, 218, 407; XI, 55.
 mill for preparing for fat determination, Rec. V, 1027.
- cake—
 analyses, Rec. VI, 663.
 effect on quality of butter, Rec. IV, 450.
 meal, analyses, Rec. IX, 873; XII, 877.
 v. grain for sheep, Rec. X, 985.
- cakes—
 analyses, Rec. VII, 336.
 as a fertilizer, Rec. VII, 490; VIII, 767, 821; XI, 136.
 feeding stuffs and fertilizers, Rec. VII, 985.
 food, Rec. VIII, 821.
 effect on constants of butter fat, Rec. XII, 181.
 fat compounds in, Rec. V, 338.
 for cows, Rec. IV, 601; XII, 179.
 horses in place of oats, Rec. V, 549.
 mustard oil in, Rec. IV, 973.
 of France, statistics, Rec. X, 623.
 oil content, Rec. IV, 615.
 poisoning of cattle with, Rec. V, 733.
 ricinus, studies, Rec. XI, 287.
 v. barley for pigs, Rec. VII, 243.
- content of—
 rape and of oil cakes, Rec. IV, 615.
 rape seed, Rec. IX, 242.
- cotton seed. (See COTTON-SEED OIL.)
- engines, trials, Rec. VI, 848; XII, 197.
- essential—
 chemistry, Rec. XI, 618.
 improved apparatus for determination, Rec. XII, 419.
 of hops, Rec. VI, 754, 869; X, 413.
 limes, Rec. VII, 162.
 oranges, Rec. VII, 405.

Oil—Continued.

essential—continued.

- of the root of *Aspidium filix-mas*, Rec. V, 252.
- for sprinkling roads, Rec. XI, 197.
- from apricot stones as an adulterant of olive oil, Rec. IV, 986.
- cherry stones as an adulterant of olive oil, Rec. IV, 986.
- peach stones as an adulterant of olive oil, Rec. IV, 986.
- plum stones as an adulterant of olive oil, Rec. IV, 986.

making, school at Bari, Italy, Rec. IV, 330.

meal. (See LINSEED MEAL.)

mustard, in rape and oil cakes, Rec. IV, 973.

of colza, composition, Rec. VI, 15.

eggs, Rec. VIII, 285.

garlic in rape-seed cake, Rec. VII, 248.

of linseed cake—

examination, Rec. VIII, 562.

variation, Rec. VII, 163.

of the black walnut, Rec. VI, 614.

plum, culture, Rec. IX, 949.

producing plants—

culture, Rec. X, 349.

notes, Rec. XII, 338.

of Formosa, Rec. V, 435.

straw and chaff, Rec. VII, 337.

seed crop in India, Rec. V, 221.

seeds, notes, Rec. XI, 294.

Oils—

analyses, Rec. VII, 257.

and fats—

adulteration, Rec. X, 884.

bromin heat value, Rec. VII, 652.

determination of iodine number, Rec. IV, 781.

edible, Rec. X, 412.

iodine number, Rec. VII, 460.

saponification, Rec. X, 118.

temperature, Rec. VI, 274.

vegetable, Rec. IX, 696.

and fatty acids, oxidation, Rec. VII, 91, 557.

wool waste, spontaneous combustion, Rec. XI, 1100.

etheral—

for fungi, Rec. X, 929; XI, 168.

formation in plants, Rec. V, 923.

examination, Rec. VI, 15.

fatty and essential, in plants, formation, Rec. V, 1027.

improvement by electric treatment, Rec. V, 735.

iodine and bromine values, Rec. XII, 419.

localization during formation of seeds and fruits, Rec. V, 1097.

lubricating—

examination for adulteration, Rec. V, 261.

silver nitrate test, Rec. V, 454.

rancid, treatment with soda solution, Rec. XII, 1007.

reaction, Rec. VIII, 285.

table—

from beech and linden, Rec. VI, 163.

rancidity, Rec. V, 823.

Oils—Continued.

used—

for food, determination of peanut oil in, Rec. X, 118.

in rations, Rec. VII, 155.

vegetable, Rec. XII, 79.

vegetable—

detection in lard and suet, Rec. X, 118.

examination, Rec. VII, 529.

in butter, recognition, Rec. VI, 271.

treatise, Rec. XI, 482.

volatile—

determination, Rec. V, 251.

determination in spices, Rec. XII, 516.

Oily seeds, germination, Rec. VII, 218, 409, 510.

Okra—

analyses, Rec. IV, 59.

and tomatoes, canned, analyses, Rec. V, 220.

canned, analyses, Rec. V, 220.

culture, Rec. IX, 357.

culture experiments, Rec. VIII, 313, 407.

fiber, notes, Rec. VI, 207.

list of varieties recommended, Bul. 2, II, 89.

notes, Rec. I, 254; X, 254, 547.

Pods, analyses, Rec. V, 64, 65,

seed, analyses, Rec. V, 64, 65; XII, 70.

varieties, Rec. V, 189; VI, 988; VII, 125, 405; VIII, 977.

Old witch grass. (See TICKLE GRASS.)

Oleander scale, notes, Rec. IV, 203.

Oleic acid—

determination, Rec. IV, 314.

for determination of mineral matter in water, Rec. X, 16.

in butter, Rec. V, 954.

Olein—

determination, Rec. IV, 448.

effect on volatile fatty acids of butter, Rec. V, 974.

for cows, effect on butter, Rec. IV, 664.

Oleomargarine— (See also MARGARINE.)

adulteration, Rec. XI, 380.

adulteration with sunflower-seed oil, Rec. IV, 986.

analyses, Rec. IV, 59; IX, 808.

and butter, distinction, Rec. V, 260, 727, 922; IX, 420; XI, 112.

behavior toward coloring matters, Rec. IV, 97.

consumption in Berlin, Rec. III, 661.

detection in butter. (See BUTTER.)

digestibility of, Rec. V, 1101.

emulsifying properties, Rec. VIII, 203.

healthfulness, Rec. VIII, 427.

in butter, detection by Brullé's reagent, Rec. IV, 781.

laws regarding in Russia, Rec. III, 70.

manufacture and sale in Belgium, Rec. XII, 1083.

studies, Rec. VI, 1023.

tubercle bacilli content, Rec. XI, 790.

Oleorefractometer—

for the examination of butter, Rec. II, 533; VI, 274.

notes, Rec. IV, 314.

Oleoresins in *Pinus palustris*, distribution, Rec. V, 455.

Olfersia macleayi, notes, Rec. XII, 1067.
Oligochaeta, systematic account, Rec. XII, 617.
Oligotrophus alopecuri, notes, Rec. X, 65.
Olipidium sp., development, Rec. VI, 487.
Olipitrichum, n. gen., Rec. VI, 147.
 Olive—
 black scale, notes, Rec. XII, 644.
 black smut, notes, Rec. XII, 644.
 cake, fertilizing constituents, Rec. X, 835.
 diseases, notes, Rec. X, 262; XI, 59; XII, 61.
 dry rot, notes, Rec. XI, 46; XII, 644.
 knot, notes, Rec. X, 55; XI, 46; XII, 965.
 leaf disease, notes, Rec. VI, 829; XI, 59.
 leaf spot, notes, Rec. XI, 46, 362.
 oil—
 adulteration, Rec. III, 593; IV, 986; V, 129, 454; VI, 1023; VII, 273, 558; X, 281; XII, 716.
 Bechi method for testing, Rec. II, 630.
 cake, feeding value, Rec. XI, 576.
 California, Rec. VI, 141.
 classification, Rec. VIII, 701.
 detection of adulteration, Rec. X, 413; XI, 23.
 detection of cotton-seed oil, Rec. IV, 986; X, 413; XI, 23.
 determination of peanut oil, Rec. X, 118.
 formation, Rec. XII, 421.
 fuel value, Rec. III, 386.
 machinery at California Station, Rec. IV, 391.
 mills, experimental, Rec. IV, 239.
 of Portugal, Rec. IX, 1095.
 preparation, Rec. VI, 141.
 production in Tunis, Rec. XII, 477.
 rancidity, Rec. VIII, 427; IX, 895.
 refuse ash, constituents, Rec. V, 728.
 residues, fertilizing value of ash, Rec. XII, 131.
 residues, utilization, Rec. XII, 477.
 testing for sesame oil, Rec. V, 728; X, 413.
 tests, Rec. II, 304, 630.
 peacock leaf spot of, Rec. XI, 46.
 rupture, Rec. IV, 694.
 scale—
 black, notes, Rec. XI, 46.
 brown, notes, Rec. X, 769.
 sooty mold, notes, Rec. XI, 46.
 spot disease, notes, Rec. XI, 949.
 trees—
 analyses, Rec. III, 593.
 fertilizers for, Rec. III, 59, 593.
 twig borer, notes, Rec. XI, 46.
 wild, notes, Rec. III, 788.
 Olives—
 analyses, Rec. III, 593; VI, 141, 820; XI, 46, 647.
 and olive oil, manual, Rec. VII, 505; XI, 744.
 apparatus for crushing, Rec. X, 255.
 ash analyses, Rec. XI, 648.
 bacterial—
 disease, Rec. X, 59.
 rot, notes, Rec. XI, 46.
 bird's-eye, treatment, Rec. XI, 554.
 California—
 analyses, Rec. V, 588; VIII, 701; X, 255.
 quality, Rec. III, 592.

Olives—Continued.
 culture, Rec. III, 592; X, 854; XI, 46, 252; XII, 55, 853.
 culture—
 and uses, Rec. XII, 898.
 experiments, Rec. VI, 637.
 in Algeria, Rec. XII, 648.
 California, Rec. IX, 841; X, 255; XI, 154; XII, 55, 643.
 Russia, Rec. IX, 357; XII, 55.
 San Joaquin, Rec. IX, 51.
 school at Bari, Italy, Rec. IV, 330.
 Spain, notes, Rec. VII, 127.
 Tuscany, Rec. VIII, 600.
 United States, Rec. IX, 561.
 cuttings, notes, Rec. VI, 722.
 distribution, Rec. III, 597.
 fermentation, Rec. XI, 125.
 fertilizer requirements, Rec. XI, 647.
 formation of oil in fruit, Rec. XII, 422.
 fungus disease, Rec. VI, 62, 63.
 germination, Rec. XII, 648.
 germination as affected by temperature of water, Rec. X, 359.
 grafting, Rec. VI, 820; VII, 505.
 importation, Rec. II, 629.
 insect enemies, Rec. XI, 474.
 notes, Rec. V, 586, 587; X, 254; XII, 945.
 observations on, Rec. II, 11.
 pickling, Rec. VIII, 701; XII, 644.
 pollination experiments, Rec. VIII, 691; XII, 946.
 polyporus of, Rec. VI, 910.
 proportion of kernel to meat, Rec. II, 11.
 Russian, notes, Rec. XII, 55.
 tuberculosis of, Rec. II, 749; X, 267.
 twig budding and grafting, Rec. VI, 820.
 variation in size and composition, Rec. XI, 46.
 varieties, Rec. II, 11, 536, 629; VI, 141, 820; VIII, 701; XI, 47.
Olliffella cristicola, notes, Rec. IX, 670.
Oloerates gibbus, intestinal parasite, Rec. XII, 273.
Omia ucsea, notes, Rec. V, 328.
Omphale livida, notes, Rec. XII, 361, 363.
Omphalia, notes, Rec. V, 740.
Omphalitis in calves, Rec. VI, 576; XI, 797; XII, 686.
Omphalo-phlebitis—
 of calves, Rec. XII, 194.
 horses, studies, Rec. XII, 292.
Onagraceæ, anatomy of stem, Rec. VIII, 380.
Oncideres—
 cingulata, notes, Rec. VI, 1002.
 cingulatus—
 life history, Rec. XI, 1066.
 notes, Bul. 2, 1, 177; Rec. II, 14, 101, 419; III, 175; IX, 371; X, 369.
Oncocnemis flagrantis, notes, Rec. V, 328.
Oncognathus binotatus, injury to timothy, Rec. IV, 667.
Oncoscelus sulciventris, notes, Rec. X, 769.
Onectra distincta, notes, Rec. X, 62.
 Onion—
 bacterial rot, notes, Rec. XII, 56, 359.
 black mold, notes, Rec. III, 307.
 cutworms on, Rec. IV, 284.

Onion—Continued.

- cutworms, remedies, *Rec. IX*, 257, 261.
- grub, remedies, *Rec. VIII*, 712.
- macrosporium, notes, *Rec. II*, 481.
- maggot—
 - notes, *Rec. II*, 654; *III*, 198; *VII*, 230; *VIII*, 148, 224, 320, 418; *IX*, 74, 160; *XII*, 265, 467.
 - remedies, *Rec. IX*, 74, 75.
- mildew—
 - notes, *Rec. II*, 481.
 - studies, *Rec. IX*, 847.
 - treatment, *Rec. VIII*, 994.
- mold, notes, *Rec. I*, 283.
- root rot, notes, *Rec. III*, 307.
- seed—
 - germination tests, *Rec. IV*, 436; *V*, 628; *XI*, 748.
 - viability, *Rec. XI*, 158.
 - vitality, *Rec. XII*, 564.
- smut—
 - experiments, *Rec. X*, 445, 1050.
 - fungus, studies, *Rec. X*, 445.
 - inoculation experiments, *Rec. XI*, 752.
 - nature and treatment, *Rec. III*, 11, 847; *VIII*, 224, 411.
 - notes, *Rec. II*, 481; *III*, 307, 479; *IV*, 659; *IX*, 656; *XII*, 353.
- thrips—
 - notes, *Rec. V*, 311; *VI*, 315; *VII*, 144, 697; *XI*, 570; *XII*, 862, 997.
 - remedies, *Rec. X*, 270, 868.
 - western, notes, *Rec. VI*, 1005.
- vermicularia, notes, *Rec. II*, 481; *III*, 307.
- white blast, *Rec. II*, 482.
- wild—
 - destruction, *Rec. VII*, 581.
 - notes, *Rec. III*, 308; *VII*, 572; *XI*, 858.
 - root system, *Rec. IV*, 46.

Onions—

- analyses, *Rec. II*, 582; *III*, 143; *IV*, 59, 922.
- autumn *v.* spring sown, *Rec. XI*, 251.
- Bermuda, notes, *Rec. XII*, 150.
- cold storage, *Rec. XI*, 153.
- cost of growing, *Rec. VIII*, 134.
- culture, *Rec. III*, 803; *VII*, 217, 771; *VIII*, 224, 700, 701; *IX*, 357; *XII*, 345.
- culture—
 - as a field crop, *Rec. X*, 43.
 - experiments, *Rec. VI*, 296; *VIII*, 313; *IX*, 244; *XII*, 342, 1043.
 - in Egypt, *Rec. VI*, 220, 423.
 - England, *Rec. VII*, 584.
 - North Dakota, *Rec. VII*, 33.
- early *v.* late planting, *Rec. VIII*, 782.
- eelworm disease, *Rec. VIII*, 63.
- effect of—
 - fertilizers, *Bul. 2*, II, 88.
 - tillage, *Bul. 2*, II, 84.
- fertilizer—
 - experiments, *Rec. IV*, 253; *VIII*, 406; *XI*, 529; *XII*, 227.
 - for, *Rec. V*, 1085.
 - formula, *Rec. XII*, 851.
- forcing, notes, *Rec. IV*, 284; *X*, 354.
- formation of albumin in, *Rec. X*, 825.
- from seed, influence of climate, *Rec. VI*, 985.
- fungus diseases, *Rec. II*, 481.

Onions—Continued.

- germination, *Rec. VIII*, 783.
- insects affecting, *Rec. VIII*, 147.
- irrigation experiments, *Rec. V*, 691; *X*, 149.
- nematode on, *Rec. V*, 1011.
- notes, *Rec. X*, 547; *XI*, 851, 1047; *XII*, 50.
- on plowed and unplowed land, *Rec. II*, 63.
- perpetual, varieties, *Bul. 2*, II, 89.
- Prizetaker, keeping quality, *Rec. XII*, 952.
- relative yield from transplanted and grown from seed, *Rec. V*, 871.
- subsoiling *v.* irrigating, *Rec. X*, 149.
- transplanting, *Rec. II*, 605; *III*, 610, 623, 627; *V*, 871; *VI*, 419, 420; *VII*, 685; *VIII*, 224, 783, 791; *X*, 849; *XI*, 244.
- varieties, *Bul. 2*, I, 32; *Bul. 2*, II, 88; *Rec. I*, 35, 76, 123, 254; *II*, 63, 392, 395, 566, 598, 605, 607; *III*, 82, 83, 85, 625, 627, 703, 791; *IV*, 253; *V*, 585, 783, 785, 870, 871, 873, 877, 1074; *VI*, 142, 419, 727, 988; *VII*, 124, 211, 213, 302, 405, 685; *VIII*, 224, 312, 791, 888, 889, 977; *IX*, 244, 350; *X*, 149, 849; *XI*, 51, 250; *XII*, 343, 1043.
- yield per acre, *Rec. II*, 64.
- Oniscus* sp., injury by, *Rec. IV*, 284.
- Onithodoros savignii*—
 - effect of bite, *Rec. XII*, 68.
 - notes, *Rec. XII*, 861.
- Onobrychis sativa*. (See SAINFOIN.)
- Onoclea, sterile and fertile leaves, *Rec. VI*, 487.
- Ontario—
 - Agricultural and Experimental Union, meeting, *Rec. VIII*, 444.
 - live-stock associations, *Rec. VIII*, 332; *XI*, 778.
 - poultry associations, reports, *Rec. VIII*, 332, 428; *XI*, 577.
- Onychomys leucogaster brevicaudus*, n. sp., notes, *Rec. III*, 184.
- Oogenesis in *Pinus laricio*, *Rec. XI*, 28.
- Oosphere, development in Peronosporæ, *Rec. IX*, 726.
- Oospora—
 - destructor, a new mildew of insects, *Rec. V*, 926.
 - guerciana, notes, *Rec. XII*, 865.
 - nicotianæ, n. sp., notes, *Rec. XI*, 515.
 - protæus, study, *Rec. XII*, 291.
 - scabies. (See POTATO SCAB.)
- Ope, Sweden, Seed Control Station, report, *Rec. VII*, 690.
- Opheltes glaucopterus* on *Cimex americana*, *Rec. IV*, 171.
- Ophibolus*—
 - graminis, notes, *Rec. IX*, 1057; *XII*, 567.
 - herpotrichus—
 - affecting cereals, *Rec. XI*, 1057.
 - notes, *Rec. VI*, 312, 909; *XII*, 261.
 - remedies, *Rec. XI*, 959.
- Ophion*—
 - macrurum, notes, *Rec. II*, 115.
 - purgatum, notes, *Bul. 2*, II, 94.
- Ophiura lienardi*, notes, *Rec. XII*, 468.
- Ophthalmia—
 - contagious, notes, *Rec. XII*, 684.
 - enzootic, in cattle and sheep, studies, *Rec. XII*, 92.
 - in horses in Russia, *Rec. XII*, 96.

Ophthalmia—Continued.

periodic—

- in domestic animals, Rec. V, 79.
- horses, Rec. XII, 792.

Ophyris aranifera, mycorrhiza, Rec. IX, 726.

Opossum flea, Rec. IX, 254.

Opsicatus personatus, notes, Rec. XII, 664.

Optical—

- phenomena, Rec. VII, 474, 845; X, 1018.
- properties of tannic acid, Rec. VII, 557.

Opuntia— (See also PRICKLY PEAR.)

- alcalhes*, notes, Rec. VII, 564.
- cholla*, notes, Rec. VII, 564.
- engelmanni*, notes, Rec. X, 343.
- fecus indica* for cows, Rec. XII, 884.
- rafinetii*, notes, Rec. III, 52.
- vulgaris*, polyembryony, Rec. X, 23.

Opuntia—

- revision of species, Rec. VIII, 107.
- rot, notes, Rec. XI, 59.

Opuntias, breeding, Rec. XI, 842.

Orange—

- aleurodes, notes, Rec. IV, 851.
- and other citrus fruits, Rec. V, 396.
- anthomania, notes, Rec. XII, 857.
- anthoptosis, notes, Rec. XII, 857.
- anthracnose, notes, Rec. XII, 655.
- aphis, notes, Rec. V, 409; X, 769.
- black blight or fumago, notes, Rec. XII, 857.
- borer, notes, Rec. X, 769.
- botany of, Rec. V, 396.
- brontosis, notes, Rec. XII, 857.
- bug—

- bronze, Rec. X, 769.
- green, Rec. X, 769.

butterfly, notes, Rec. X, 769.

carpoptosis, notes, Rec. XII, 858.

chionaspis, notes, Rec. VI, 742.

dog, notes, Rec. V, 409.

dropping and its cause, Rec. VIII, 408.

fly in Malta, Rec. VI, 440.

fruit worm, notes, Rec. VIII, 807.

gum disease, notes, Rec. I, 168.

gummosis, notes, Rec. XII, 857.

hawkweed— (See also HIERACIUM AURANTIACUM.)

- notes, Rec. IX, 153, 453, 758, 846; XI, 354.
- remedies, Rec. VIII, 987, 988.
- root system, Rec. IV, 46.

leaf blight, Rec. VIII, 705.

leaf roller, notes, Rec. VI, 313.

leaf rust, Rec. X, 266.

leaf spot, notes, Rec. XI, 759.

melanose, Rec. VIII, 318.

melon, notes, Rec. I, 283; XII, 553.

mussel scale, notes, Rec. VII, 881.

orchards—

- covering, Rec. XI, 151, 744.
- restoration, Rec. V, 925; VIII, 129.

osage, notes, Rec. VII, 134.

peel—

- notes, Rec. VI, 15.
- sugar content, Rec. X, 219.

root rot, treatment, Rec. XI, 1048.

rust—

- mite, notes, Rec. X, 769.
- notes, Rec. III, 313.
- treatment, Rec. VII, 404.

Orange—Continued.

scale—

- brown, on roses, Rec. V, 663.
- insects, notes, Rec. II, 101.
- insects, treatment, Rec. XI, 372.

soft spot, cause, Rec. IX, 568.

sooty mold—

- notes, Rec. IX, 658; XI, 463; XII, 655.
- treatment, Rec. VI, 737.

sour sap, prevention, Rec. VIII, 705.

tree—

- analyses, Rec. VII, 217, 500.
- white fly, Rec. VIII, 807.

trees—

- effect of fertilizers on, Rec. II, 491.
- hydrocyanic-acid gas for, Rec. VII, 793.

wither tip, notes, Rec. XII, 655.

withers, or lupa, notes, Rec. XII, 857.

worms, notes, Rec. VIII, 808.

Orangery, covered, Rec. XI, 154.

Oranges—

- analyses, Rec. III, 78, 591; IV, 59, 347; V, 396, 588; VII, 582; X, 250, 255, 754.

artificial coloring, Rec. XII, 1045.

Australian, statistics of exports, Rec. IX, 999.

budding, Rec. XII, 648.

California, Rec. V, 588.

California—

- analyses, Rec. VI, 220, 815; VIII, 691.
- damaged by frost, Rec. VII, 585.
- grown, Rec. III, 79.

culture, Rec. III, 107; V, 396; X, 1044.

culture in Malta, Rec. XII, 857.

diseases, Rec. III, 327; X, 660.

essential oil, Rec. VII, 405.

fertilizer experiments, Rec. X, 250.

fertilizers for, Rec. IV, 348; V, 396, 589.

fertilizing constituents removed from soil by, Rec. II, 272; III, 81; IV, 921.

grafting, Rec. VII, 505.

insects affecting, Rec. V, 409; VI, 834, 838; X, 660.

irrigation in Syria, Rec. XII, 1096.

Jaffa, notes, Rec. V, 1030.

Japanese, notes, Rec. II, 372.

Mediterranean, insects affecting, Rec. III, 813.

navel as affected by fertilizers, Rec. VIII, 692.

notes, Rec. V, 586, 587; XII, 945.

nutritive value, Rec. III, 80.

propagation, Rec. V, 396; IX, 561; XI, 847.

protection from frost, Rec. V, 396; VII, 771; X, 48, 754.

pruning, Rec. XI, 1047.

reproduction from seed, Rec. VIII, 55.

root—

- penetration, Rec. XII, 450.
- system as affected by culture, Rec. XII, 753.

russet, Rec. VI, 440.

seedless, origin, Rec. XII, 399.

soil fertilization, Rec. VII, 500.

stocks for, Rec. II, 749; XI, 1048.

sugar content, Rec. III, 79.

sweet liquid in green parts, Rec. IV, 872.

varieties, Rec. III, 78; V, 190, 396; VI, 142, 820; VII, 405; VIII, 130, 407; IX, 51, 245.

Orchard—

covers, notes, Rec. V, 874.

fruits. (See FRUITS, ORCHARD; and the different kinds.)

grass—

analyses, Bul. 2, II, 38, 39, 51; Rec. II, 329, 667; III, 296, 629; IV, 475, 646; V, 64, 596; VI, 404, 444, 568, 569, 752; VII, 155, 614; VIII, 81; IX, 268, 786; X, 72, 244; XI, 882; XII, 471, 1077.

as a forage plant, Rec. III, 28, 29, 51.

bacteriosis, Rec. XI, 759.

culture, Rec. X, 948.

culture experiments, Rec. III, 860; IV, 38, 248; V, 870, 871; VI, 294, 296, 581; VII, 120; VIII, 401; X, 244.

digestibility, Bul. 2, I, 132; Bul. 2, II, 54; Rec. I, 35; X, 1082.

digestibility of protein in, Bul. 2, II, 61.

fertilizing constituents, Bul. 2, I, 133.

for meadows and pastures, Rec. II, 238.

permanent meadows, Rec. III, 398.

hay, analyses, Rec. III, 40.

hay, digestibility, Bul. 2, I, 157.

notes, Bul. 2, I, 164; Bul. 2, II, 84; Rec. I, 317, 320; II, 69, 238, 271, 329, 594, 601, 632, 658, 740; VI, 215, 294, 542, 635; VII, 296, 384; IX, 624; XI, 339; XII, 539.

protein content as affected by nitrogenous fertilizers, Rec. V, 579.

seed, examination, Rec. V, 334, 910.

seed from different sources, comparison, Rec. XII, 457.

seed, germination tests, Rec. IV, 923; VI, 429.

seed, impurities, Rec. XI, 54.

seed, planting, Rec. III, 107.

seed, tests, Rec. III, 143.

seed, viability, Rec. XI, 158.

v. timothy, digestibility, Rec. I, 35.

trees—

as affected by alkali, Rec. VIII, 706.

leaf diseases, Rec. XI, 861.

why they stop bearing, Rec. VIII, 985.

Orchards— (See also FRUIT TREES.)

alfalfa and clover in, Rec. VII, 585.

and gardens, insects affecting, Rec. VIII, 911, 912.

vineyards in the United States, Rec. VIII, 792.

apple. (See APPLE ORCHARDS.)

birds as protectors, Rec. VIII, 753.

conservation of water for, Rec. VI, 170.

cover crops, Rec. V, 874; VII, 585; X, 152, 251, 252, 849, 999; IX, 51; XI, 254, 1047; XII, 449.

crimson clover for, Rec. VIII, 312.

cultivating v. cropping, Rec. X, 999.

cultivation, Bul. 2, I, 66; Rec. VI, 420, 546, 821, 901, 990; VII, 864; VIII, 313; IX, 450; X, 354, 752, 960, 1044; XII, 449, 898, 1044.

culture, Rec. IX, 1054; XI, 153; XII, 554, 944.

English, improvement, Rec. X, 152.

fertilization, Bul. 2, I, 66.

fertilization and irrigation, Rec. VI, 755.

fertilizer—

experiments, Rec. X, 959.

requirements, Rec. VII, 771; VIII, 407.

fertilizers for, Rec. V, 820; X, 353; XII, 345.

Orchards—Continued

fumigation, Rec. XI, 64.

fumigation, cost, Rec. XII, 470.

green—

manuring, Rec. IX, 950.

manuring plants for, Rec. XII, 798.

in meadows, Rec. XII, 138.

insects affecting, Rec. VIII, 911, 912; IX, 261; X, 272, 369, 661; XI, 274, 765.

inspection. (See NURSERY INSPECTION.)

irrigation, Rec. VI, 755; VII, 131, 430, 585; XI, 847; XII, 798, 1042.

labels for, Rec. V, 402, 875.

management, Rec. II, 599; III, 107; IV, 561, 652; VI, 221; IX, 246; XII, 345.

manuring, Rec. IV, 872, 876; VIII, 408.

mice injuring, Rec. VI, 990.

mulching, Rec. III, 107.

planting, Rec. III, 160; VIII, 313, 496.

potash and bone as fertilizer for, Rec. VI, 549.

pruning, Rec. VI, 821; VII, 771; IX, 246.

renovation, Rec. XII, 345, 766.

Russian, Bul. 2, II, 75, 90.

self-sterility, Rec. XI, 851.

setting out and pruning, Rec. VII, 771.

smudging to prevent injury from frost, Rec. X, 254.

soil preparation, Rec. VI, 638.

spraying, Rec. V, 402, 683, 901; VI, 647, 999; VII, 126, 137, 879; VIII, 53; IX, 457, 471; X, 870; XI, 765; XII, 270.

spraying experiments, Rec. XI, 167.

tillage v. irrigation, Rec. VII, 131.

treatment for insects and fungus diseases, Rec. IV, 42.

wind-breaks, notes, Bul. 2, II, 94.

Orchelimum glaberrimum, notes, Rec. IV, 839.

Orchid—

beetle—

notes, Rec. X, 165.

remedies, Rec. XI, 174.

breeding, curiosities, Rec. XI, 52.

bug, remedies, Rec. XI, 174.

disease, Rec. IX, 251.

disease—

caused by *Glucosporium macropus*, Rec. IV, 54; IX, 362.

treatment, Rec. IX, 362.

diseases, notes, Rec. IV, 53; VI, 827, 910.

family, limits of hybridization in, Rec. XI, 52.

hybrids, Rec. XI, 52, 549.

hybrids, dictionary, Rec. IX, 951.

leaf blight, notes, Rec. V, 937.

leaf spot, notes, Rec. VI, 647.

roots, habits of growth, Rec. XI, 454.

scale, notes, Rec. IX, 871.

spot disease, Rec. VII, 511.

Orchids—

absorption of water, Rec. XII, 149.

ash of, Rec. VIII, 409.

bulbs, Rec. IX, 227.

culture, Rec. IX, 651; XII, 451.

culture—

and management, Rec. VII, 586, 687.

in Europe, Rec. IX, 951.

decline of popularity, Rec. X, 963.

degeneration, Rec. IX, 140, 450.

germination, Rec. XI, 355; XII, 350.

Orchids—Continued.

- growing from seed, Rec. XII, 451, 855.
- hybridization, Rec. IX, 140.
- injury by cattleya fly, Rec. VII, 880.
- mycorrhiza, Rec. IX, 726.
- new species, Rec. IV, 615, 984; IX, 756; XI, 353.
- propagation, Rec. X, 49.

Orchilla guano—

- analyses, Rec. VIII, 300.
- use, Rec. III, 294.

Orcus—

australasiae—

- as a parasite on scale insects, Rec. IV, 373.
- notes, Rec. V, 100; VI, 741.

chalybeus—

- attempted introduction into South Africa, Rec. XI, 760.
- notes, Rec. VI, 741.

- spp., collection in Australia, Rec. III, 546.

Orcuttia—

- californica*, notes, Rec. IV, 498.
- greenei*, notes, Rec. IV, 498.

Oregon—

- soils of, Rec. V, 827.
- water hemlock, notes, Rec. X, 516.

Oreodera in West Indies, Rec. IX, 670.

Ores—

- analyses, Bul. 2, I, 173; Rec. V, 217, 737; VI, 401; VII, 273; VIII, 561.
- cost of chemical analyses, Rec. V, 562.

Organic—

- acids, effect on alcoholic fermentation, Rec. VII, 659.

- analysis, Rec. XII, 108, 308.

analysis—

- apparatus for, Rec. V, 922.
- apparatus for absorption, Rec. XII, 309.
- elementary, Rec. IX, 419.
- new method, Rec. III, 654, 818; IV, 288.
- with compressed oxygen, Rec. XI, 213.

- bases of animal origin, Rec. VII, 736.

compounds—

- micro-chemical analyses, Rec. X, 315.
- oxidation by laccase, Rec. VII, 921; VIII, 285.

- constituents of humus, Rec. V, 819.

- liquids, injection into animals, Rec. V, 734.

material—

- decomposition, Rec. XII, 530.
- effect on nitrifying organisms, Rec. XI, 711; XII, 722.

- materials, method of analysis, Rec. X, 19.

matter—

- and microbes in the soil, Rec. V, 730.
- decaying, effect on phosphates, Rec. V, 255, 287; VI, 124.
- decaying, loss of nitrogen in, Rec. VII, 198.
- decomposition in the soil, Rec. VIII, 879.
- determination, Rec. VIII, 99.
- determination in water, Rec. VIII, 286; IX, 537; X, 717.
- in plants, Rec. IX, 903.
- of soil, nitrification, Rec. IV, 294.
- the soil, oxidation, Rec. IV, 537; VIII, 208, 574.
- phosphoric acid in, Rec. VIII, 377.

- nitrogen— (See NITROGEN, ORGANIC.)

Organic—Continued.

- phosphorus of casein, Rec. V, 727, 922.

substances—

- as affected by permanganate of potash, Rec. VII, 17.
- assimilation by plants, Rec. VI, 284.
- drying, Rec. IX, 223.
- iodin in, Rec. VII, 272.

Organisms—

- acclimatization, Rec. VIII, 473.
- as affected by lecithin, Rec. VII, 660.
- differentiation, Rec. VIII, 473.
- in the sap of trees, Rec. VII, 928.
- living, chromosomes, Rec. VI, 388.
- lower, anatomy and physiology, Rec. VIII, 566.

Organography—

- of Archegoniates and Spermatophytes, Rec. X, 23.
- plants, Rec. X, 612.

- Organs of human body, mineral constituents, Rec. IX, 481.

- Orgilus mellipes*, notes, Rec. XII, 362.

Orgyia—

- antiqua*, notes, Rec. IV, 661; X, 65; XI, 870.
- definita*, notes, Rec. III, 53; IV, 661.
- leucostigma*. (See TUSOCK MOTH, WHITE-MARKED.)
- pubibunda*, notes, Rec. VIII, 711.

- "Oriental fertilizer and bug destroyer," analyses, Rec. VI, 272, 317.

- Origanum vulgare*, notes, Rec. V, 911.

- Oriole, Baltimore. (See BALTIMORE ORIOLE.)

- Ormenis pruinososa*, notes, Rec. VI, 313.

Ornamental—

- bedding, Rec. IX, 1054.
- bulbous plants, fungus diseases, Rec. VI, 826.
- ferns, tip blight, Rec. V, 937; VI, 827.
- fig, notes, Rec. V, 402.
- forest and shade trees, Rec. VI, 903.
- grasses, native, Rec. VII, 772, 837.
- planting, Rec. XII, 55.
- plants, Rec. IV, 653, 922.
- plants—

- adapted to Ontario, Rec. VI, 56, 729.
- as affected by drought, Rec. X, 449.
- crossing and hybridizing, Rec. X, 252.
- culture experiments, Rec. VI, 424.
- diseases, treatment, Rec. X, 447.
- fertilizer experiments, Rec. X, 49.
- for Maine, Rec. X, 855.
- Nebraska, Rec. X, 638.
- fungus diseases, Rec. IV, 53; VII, 692.
- grouping, Rec. IX, 140.
- home propagation, Rec. IX, 139.
- notes, Rec. II, 607; III, 720; XI, 850; XII, 345, 354.

- pruning, Rec. X, 356.

- shrubs, Rec. IV, 728; XII, 152.

shrubs—

- adapted to Ontario, Rec. VI, 56, 729.
- cultivated for their flowers, Rec. X, 153.
- for Minnesota, Rec. IV, 654.
- fungi affecting, Rec. XI, 477.
- hardy, Rec. XI, 498.
- notes, Rec. VII, 586; XI, 855.
- planting, Rec. XII, 347.
- propagation, Rec. VI, 426; X, 153.

Ornamental—Continued.

shrubs—continued.

pruning, Rec. XI, 50, 852.

varieties, Rec. XI, 852.

tree planting, notes, Rec. XI, 745.

trees— (See TREES, ORNAMENTAL.)

propagation from seed, Rec. IX, 53.

Russian, tests, Rec. XI, 647.

varieties, Rec. XI, 852.

vines for Minnesota, Rec. IV, 654.

Ornamentals, native, Rec. XII, 449.

Ornithobius, notes, Rec. XI, 263.

Ornithodoros megnini, notes, Rec. XII, 973.

Ornithology—

economic, progress in United States, Rec. XII, 423.

of North Carolina, Rec. X, 324.

Ornithopus satirus—

analyses, Rec. VIII, 810.

notes, Rec. II, 70, 337, 650; III, 30, 159; V, 844; VI, 34, 294.

(See also CLOVER, BIRD'S FOOT).

Ornithomyia avicularia, notes, Rec. XII, 1060.

Orobanche—

cumana, notes, Rec. XII, 859.

minor, notes, Rec. X, 556.

ramosa, root system, Rec. IV, 47.

speciosa, notes, Rec. X, 556.

spp., growth, Rec. VII, 511.

Orobanche—

injury to tobacco, Rec. XII, 572.

on clovers, destruction, Rec. X, 647; XI, 159.

Orobis—

tuberosus, analyses, Rec. X, 72.

vernus, analyses, Rec. X, 72.

Orris root, cultivation in Italy, Rec. X, 546.

Orsodachma atra, notes, Rec. IV, 204.

Ortolid fly on cereals, Rec. VI, 1003.

Orthogoriscus mola, notes, Rec. IX, 96.

Orthezia—

annæ, notes, Rec. VI, 438; VII, 228.

cataphracta, notes, Rec. VII, 228.

floccosa, notes, Rec. VII, 228.

insignis—

notes, Rec. VII, 141, 146, 228; XI, 278, 564; XII, 162.

prevalence, Rec. IV, 666.

mænariensis, notes, Rec. VII, 228.

n. sp., notes, Rec. VII, 517.

occidentalis, notes, Rec. VII, 228.

prælonga, notes, Rec. VII, 228.

urticeæ, notes, Rec. VII, 228.

Orthocarpus purpurescens, notes, Rec. III, 598.

Orthogomys—

latifrons, notes, Rec. VI, 787.

nelsoni, notes, Rec. VI, 787.

Orthophagus polyheui, n. sp., Rec. VI, 440.

Ortho-phosphoric acid—

as a fertilizer, Rec. V, 702.

effect on the albumen of hen's eggs, Rec. X, 412.

for oats, Rec. V, 925.

Orthoptera—

classification, Rec. IX, 158.

exotic, Rec. VIII, 712.

greenhouse, Rec. IX, 471.

of Austria-Hungary and Germany, Rec. XII, 1068.

Orthoptera—Continued.

of France, Rec. XII, 1068.

Italy, Rec. X, 167.

Kentucky, Rec. VI, 316.

Minnesota, Rec. X, 466.

North America, Rec. VIII, 1002.

systematic position, Rec. XI, 562.

Orthopters, female, genital apparatus, Rec. VII, 882.

Orthorrhinus cylindrirostris, notes, Rec. XII, 774.

Orthotylus delicatus, notes, Rec. III, 291; X, 168.

Orygia postica, notes, Rec. XI, 273.

Oryza clandestina, notes, Rec. VI, 18.

Oryzopsis—

cuspidata, notes, Rec. II, 321.

exigua, notes, Rec. IV, 498.

fimbriata, notes, Rec. III, 548.

melanocarpa, notes, Rec. VI, 403.

membranacea, notes, Rec. III, 548; IX, 348.

micrantha, notes, Rec. VI, 403.

miliacea, notes, Rec. X, 245.

webberi, notes, Rec. IV, 498; IX, 348.

Osage orange—

notes, Rec. IV, 654; V, 101; VII, 134.

pyralid, notes, Rec. IV, 668; VI, 313.

scale, notes, Rec. VII, 411.

Oscillaria—

subtilissima on greenhouse plants, Rec. XI, 906.

tenuis on greenhouse plants, Rec. XI, 906.

Oscillatoria, monograph, Rec. VI, 195.

Oscinidæ, habits, Rec. X, 570.

Oscinis—

carbonaria. (See FRIT FLY, AMERICAN.)

frit—

notes, Rec. VI, 65; VII, 882, 883; IX, 74; X, 65; XI, 658.

remedies, Rec. XI, 959.

(See also FRIT FLIES.)

maura attacking Scotch firs, Rec. XI, 263.

pusilla, notes, Rec. VI, 316.

soror, notes, Rec. IX, 150.

sp., description and treatment, Rec. III, 889.

tæniopus, notes, Rec. VII, 517.

variabilis, notes, Rec. II, 228; III, 197, 359; X, 164.

Osier—

culture, notes, Rec. VI, 903; VII, 775, 870.

dogwood, red, notes, Rec. III, 522.

willows—

experiments, Rec. III, 45.

history and value, Rec. IX, 757.

species, Rec. III, 703.

varieties, Rec. II, 372.

Osiers—

cultivation, Rec. V, 740.

culture, Rec. X, 53, 642.

Osmaronia cerasiformis, notes, Rec. V, 589.

Osmia—

bicolor, structure of nest, Rec. IX, 468.

cerasi, notes, Rec. VIII, 910.

phenax, notes, Rec. VIII, 910.

prunorum, notes, Rec. VIII, 910.

Osmoderma scabra, notes, Rec. X, 168.

Osmogenic organisms, Rec. XI, 714.

Osmometer and root-pressure apparatus, Rec. X, 417.

- Osmosis—
 in the manufacture of sugar, Rec. IV, 984.
 vegetation, Rec. VII, 743.
 relation to activity of ferments, Rec. VII, 924.
- Osmotic pressure—
 of sodium chlorid solutions, Rec. XI, 419
 studies, Rec. VIII, 290.
- Osmunda cinnamomea*, notes, Rec. IV, 472.
- Osmylus* spp., notes, Rec. XII, 869.
- Osscin, analysis, methods, Rec. XI, 1100.
- Osteomyelitis, bacteriological examination of
 blood in, Rec. V, 927.
- Osteoporosis—
 effect on composition of bones, Rec. XII, 96.
 notes, Rec. VII, 64.
 of domestic animals, Rec. V, 79.
- Ostomidae, monograph, Rec. XI, 562.
- Ostreaculture, Rec. III, 302.
- Ostrich—
 farming in New Zealand, Rec. XII, 1077.
 manure, analyses, Rec. VIII, 682.
- Ostriches, infectious disease, Rec. XII, 492.
- Ostrya virginiana*, notes, Rec. III, 521; IV, 655.
- Ost's copper solution for determination of sugar,
 Rec. IV, 612.
- Otaucstes chrysopa*, n. sp., notes, Rec. VI, 739.
- Otaheite gooseberry, notes, Rec. VI, 636.
- Otiiorhynchid, notes, Rec. VI, 1008.
- Otiiorhynchus*—
ligustici—
 food plants, Rec. IX, 1072.
 in alfalfa field, Rec. VII, 968; VIII, 69.
 means of distribution, Rec. XII, 663.
 notes, Rec. VII, 968; IX, 1070; X, 763.
ovatus, notes, Rec. VI, 838.
picipes, notes, Rec. XI, 264, 766.
septentrionus on firs, Rec. VI, 151.
singularis on firs, Rec. VI, 151.
sulcatus, notes, Rec. VI, 442; VIII, 69; XII, 271.
- Otter, Newfoundland, Rec. IX, 1030.
- Otus (Strix) brachyotus*, notes, Rec. IX, 530.
- Orata* spp., notes, Rec. V, 869.
- Oven—
 bacteriological and vacuum, Rec. V, 729.
 drying—
 description, Rec. IV, 782; X, 18.
 electric, Rec. XI, 313.
 new form, Rec. IV, 613.
 for drying—
 substances in hydrogen, Rec. VII, 90.
 under varying air pressure, Rec. IV, 984.
 new, for bacteria cultures, Rec. VIII, 473.
 temperature of, for baking bread, Rec. V, 733.
- Overeating, effect on health, Rec. IX, 87.
- Overflow lands, late crops for, Rec. VI, 212.
- Ovis stonoi*, notes, Rec. IX, 1030.
- Ocularia*—
medicaginis, n. sp., description, Rec. XII, 767.
necans, notes, Rec. V, 530.
obliqua, notes, Rec. IV, 50; VIII, 899.
- Owl—
 barn, notes, Rec. VI, 695; X, 521.
 barred, notes, Rec. VI, 695.
 dwarf screech, notes, Rec. III, 184.
 great horned, notes, Rec. VI, 695.
 long-eared, notes, Rec. VI, 695; XI, 428.
- Owl—Continued.
 screech, notes, Rec. VI, 695.
 short-eared, notes, Rec. VI, 695; VII, 471; IX, 530; XI, 428.
- Owls—
 and hawks of the United States, Rec. IV, 852.
 as enemies of locust, Bul. 2, II, 93.
- Ox—
 bot, life history, Rec. IV, 82.
 botfly, notes, Rec. VII, 44, 581; XI, 272.
 gadfly, notes, Rec. XI, 263.
 louse—
 long-nosed, remedies, Rec. VIII, 806.
 short-nosed, remedies, Rec. VIII, 806.
 meat, elementary composition, Rec. V, 540.
 Strongylus from, Rec. V, 439.
- Ox-warble—
 fly—
 breeding, Rec. III, 501.
 notes, Rec. II, 169, 659; III, 859, 860; XI, 263.
 notes, Rec. IX, 674.
- Oxalate of lime. (See CALCIUM OXALATE.)
- Oxalic acid—
 action on—
 inulin, Rec. VI, 966.
 phosphates, silicates, and soil, Rec. VI, 182.
 as an insecticide, Rec. II, 319.
 effect on starch, Rec. VII, 366.
 for preserving plants, Rec. VII, 657.
 in feeding stuffs, Rec. IX, 171.
 plants, localization, Rec. IV, 984; V, 434.
 soil extraction, Rec. VI, 792.
 tobacco, Rec. X, 1004.
 inverting power on sucrose, Rec. XI, 20.
 poisoning, Rec. IX, 475.
 production by bacteria, Rec. XII, 722.
 salts, poisonous action, Rec. VII, 467.
- Oxalides, sensitive organs, Rec. VIII, 204.
- Oralis*—
(Hirdysarioides) agassizi, n. sp., notes, Rec. IV, 374.
corniculata—
 analysis, Rec. III, 629.
 notes, Rec. III, 598; X, 343.
- Oxalis pulvini, notes, Rec. X, 223.
- Oxen— (See also STEERS.)
 feeding—
 experiments, Rec. V, 376; VII, 413.
 raw potatoes to, Rec. V, 540, 812.
 formation of fat from carbohydrates by, Rec. V, 1032.
 hay for, Rec. V, 244, 920.
 of Ceylon, Rec. VII, 804.
 relation of food to excretion of hydrocarbons,
 Rec. V, 1032.
- Oxeye daisy—
 analyses, Rec. III, 629; VII, 155; IX, 479.
 eradication, Rec. XI, 159, 749.
 law regarding, Rec. I, 323.
 notes, Rec. III, 217, 308, 398, 598, 629, 893; IV, 47, 472, 591; V, 398, 529; VI, 145, 224, 822; VIII, 703; XI, 599.
 root system, Rec. IV, 46.
- Oxford, agricultural instruction, Rec. VIII, 837.
- Oxid of iron and iron pyrites in mineral phosphates, Rec. V, 538.

- Oxid of nitrogen—
 effect on metals and mercuric oxids, *Rec. VII*, 364.
 reduction, *Rec. VII*, 91, 272.
- Oxidation—
 of beer wort, *Rec. VI*, 251.
 oils and fatty acids, *Rec. VII*, 91, 557.
 organic compounds by laccase, *Rec. VII*, 921; *VIII*, 285.
 organic matter in the soil, *Rec. VIII*, 208, 574.
 soils, *Rec. IV*, 537.
 tannin in cedar apples, *Rec. VII*, 17.
 process in cheese, *Rec. V*, 1047.
- Oxidizing ferment of vegetable origin, *Rec. VII*, 921.
- Oxycaenus*—
hyalipennis, notes, *Rec. XI*, 563.
lugubris affecting cotton, *Rec. XI*, 1063
- Oxycelluloses—
 chemistry, *Rec. V*, 538, 647.
 natural, *Rec. VI*, 110.
 studies, *Rec. VII*, 185, 462, 833; *IX*, 419; *XII*, 309.
- Oxydase—
 and peroxidase—
 effect upon chlorophyll, *Rec. XII*, 216.
 effect upon diastase, *Rec. XII*, 217.
 and the guaiac reaction, *Rec. X*, 322.
 for coloring wine, *Rec. XI*, 294.
 of grapes, *Rec. IX*, 419.
 wines, *Rec. VIII*, 954; *IX*, 924.
- Oxydases, chemical composition, *Rec. IX*, 229.
- Oxy-ferments of milk and saliva, *Rec. XII*, 118.
- Oxygen—
 absorption by detached leaves, *Rec. V*, 729.
 and carbonic acid, exchange between plants and atmosphere, *Rec. IV*, 448, 678, 870; *V*, 729.
 apparatus for preparing, *Rec. V*, 433.
 compressed, in organic analysis, *Rec. XI*, 213.
 consumption—
 and formation of carbon dioxide, *Rec. IX*, 1080.
 by mammals, *Rec. X*, 885.
 content—
 of air, physiological effect, *Rec. IX*, 275.
 water as affected by electricity, *Rec. XI*, 133.
 determination, *Rec. VIII*, 377, 667; *IX*, 26, 1023.
 effect on—
 anaerobic bacteria, *Rec. IX*, 229.
 fermentation, *Rec. XI*, 122.
 exchanges between plants and the air, *Rec. IV*, 517.
 for heaves in horses, *Bul. 2*, 1, 105.
 in drinking water, Winkler method for determination, *Rec. VIII*, 377.
 water, determination, *Rec. VII*, 921; *XI*, 213, 312.
 of the air, origin, *Rec. V*, 345.
 rôle in germination, *Rec. XII*, 348.
 separation by chlorophyll grains in light, *Rec. X*, 121.
 vegetation in atmosphere devoid of, *Rec. V*, 539, 617.
- Oxyopisthinae, notes, *Rec. XI*, 767.
- Oxyptilus*—
nigrociliatus, notes, *Rec. III*, 199.
periscelidactylus, notes, *Rec. II*, 654; *III*, 298.
tenuidactylus, notes, *Rec. IV*, 839; *XI*, 952.
- Oxytropus*—
lamberti—
 notes, *Rec. IV*, 924; *V*, 319.
 poisoning of stock by, *Rec. II*, 395.
monticola, notes, *Rec. V*, 319.
- Oxyuris stossichii*, notes, *Rec. IX*, 1093.
- Oyster—
 aquariums, purification of water, *Rec. IV*, 74.
 beds, submarine mower for, *Rec. IV*, 73.
 economics, *Rec. III*, 304.
 industry—
 investigations, *Rec. III*, 296.
 of New Jersey, statistics, *Bul. 2*, 1, 136; *Rec. I*, 134.
 plant. (*See SALSIFY.*)
 shell bark-lice. (*See BARK-LOUSE, OYSTER-SHELL.*)
 shell lime—
 analyses, *Rec. IV*, 903.
 valuation, *Rec. XI*, 528.
 shells—
 analyses, *Rec. IX*, 825; *XII*, 624, 934.
 for hens, *Rec. III*, 705; *IV*, 262.
- Oysters—
 analyses, *Rec. IX*, 163.
 bacteria in, *Rec. IX*, 924; *XI*, 426.
 claires for, *Rec. IV*, 74; *V*, 733.
 coloring, *Rec. VII*, 20, 524.
 conditions affecting growth, *Rec. IV*, 72.
 culture—
 exhibit, Columbian, *Rec. V*, 412.
 in Europe, *Rec. IX*, 581.
 France, *Rec. VII*, 891; *XII*, 179.
 Point Judith Pond, *Rec. IX*, 983.
 studies, *Rec. V*, 411.
 cytohelminths in, *Rec. IV*, 71.
 embryos, *Rec. III*, 305.
 feeding and growth, *Rec. IV*, 72.
 freshening, *Rec. IV*, 72.
 food, *Rec. IV*, 72.
 greening, *Rec. V*, 733; *XI*, 426; *XII*, 424.
 jelly rods in, *Rec. IV*, 72.
 occurrence of green leucocytosis, *Rec. X*, 522.
 parasites, *Rec. III*, 303; *IV*, 71.
 physiology, *Rec. III*, 303.
 spawn, *Rec. III*, 305.
 spawn, development and fixation, *Rec. IV*, 73.
 spawning, *Rec. IV*, 73.
 spawning, temperature of, *Rec. III*, 303.
 spermatozoa, *Rec. III*, 304.
 studies, *Rec. XI*, 426.
 typhoid bacilli in, *Rec. XI*, 427.
- Ozone—
 antiseptic value, *Rec. V*, 823, 902.
 artificial production, *Rec. VIII*, 105.
 for aging and conserving wines, *Rec. V*, 214.
 sterilizing water, *Rec. XI*, 133, 328, 718.
- Ozonium auricomum*—
 as a cause of root rot of cotton, *Rec. I*, 318.
 notes, *Rec. II*, 547; *IV*, 470.
 (*See also COTTON, ROOT ROT.*)
- Pachybasium* sp., notes, *Rec. II*, 303.
- Pachybrachys carbonarius*, notes, *Rec. IV*, 839.
- Pachyma cocos*, composition, *Rec. VII*, 557.

- Pachymerus calcitrator*, notes, **Rec. XII**, 1067.
Pachymenatus extensicornis, notes, **Rec. XI**, 63.
Pachyneuron altiscuta, notes, **Rec. VIII**, 906.
Pachyneuron, habits of, **Rec. II**, 269.
Pachyrhina—
maculosa. (See *TIPULA MACULOSA*.)
 sp., notes, **Rec. V**, 312.
Pachytylus— (See also *LOCUSTS*.)
australis, notes, **Rec. XII**, 1067.
migratorius—
 means of distribution, **Rec. XII**, 663.
 remedies, **Rec. XI**, 658.
 Pacific—
 Coast—
 August weather, **Rec. XI**, 621.
 low areas, **Rec. VIII**, 676.
 Northwest, cause of mildness of temperature,
Rec. XI, 622.
 Packing—
 cases, inspection of, **Rec. XI**, 958.
 houses for fruit, **Rec. VI**, 252; **VIII**, 311.
 Padua, Italy—
 Experiment Station at, **Rec. IV**, 237.
 Institute of Hygiene, publications, **Rec. X**,
 780.
 Sericultural Station at, **Rec. IV**, 237.
 Pæonia—
 diseases, **Rec. IX**, 457.
 leaf, discoloration, **Rec. VI**, 487.
Pæonia spp., notes, **Rec. IV**, 654.
Pagellus erythrinus, notes, **Rec. IX**, 96.
 "Paine's stock feed," analyses, **Rec. VI**, 812.
 Painted acacia moth, notes, **Rec. VIII**, 712, 1002.
 Paints, analyses, **Rec. III**, 92, 292; **X**, 194.
Palaearcta vernalis. (See *CANKERWORM*, *SPRING*.)
 Paleobotany, stipules in, **Rec. VI**, 487.
 Palermo, Italy, Experiment Station at, **Rec. IV**,
 235.
 Palm—
 beetle, notes, **Rec. XII**, 774.
 cahoon, notes, **Rec. VI**, 636.
 date. (See *DATE PALM*.)
 diseases, notes, **Rec. VI**, 826; **X**, 59.
 leaf blight, **Rec. V**, 1104; **X**, 456.
 leaf disease, notes, **Rec. XII**, 655.
 nuts, fat content, **Rec. VI**, 754.
 peach, notes, **Rec. VI**, 820.
 royal, notes, **Rec. VI**, 636.
 sugar, notes, **Rec. VI**, 344.
 trees of the United States, **Rec. VII**, 869.
 weevil—
 in British Honduras, **Rec. V**, 328.
 notes, **Rec. IV**, 986.
 Palmer's icerya, notes, **Rec. IV**, 418.
 Palmetto—
 extract, a new tanning material, **Rec. VI**,
 1027.
 root, analyses, **Rec. II**, 579.
 saw, analyses, **Rec. IX**, 225.
 scale, notes, **Rec. VIII**, 609, 711.
 Palmettos, tannin in, **Rec. VII**, 993.
 Palmin, digestibility, **Rec. XI**, 660.
 Palm-nut—
 cake—
 alum content, **Rec. III**, 503.
 analyses, **Rec. II**, 589; **VIII**, 153.
 effect on butter, **Rec. V**, 724.
 Palm-nut—Continued.
 cake—continued.
 effect on yield and composition of milk,
Rec. V, 824, 917, 969; **X**, 1083.
 for cows, **Rec. XI**, 1084; **XII**, 589.
 meal—
 analyses, **Rec. II**, 589.
 effect on milk fat, **Rec. XI**, 1082.
 for cows, **Rec. II**, 592.
 notes, **Rec. VI**, 1023.
 v. corn for pigs, **Rec. XI**, 70.
 oil, effect on butter, **Rec. IV**, 664; **V**, 974.
 residue for cows, **Rec. XII**, 589.
 Palms—
 Persian varieties, **Rec. III**, 686.
 propagation from seed, **Rec. X**, 641.
Palthis angulalis, notes, **Rec. II**, 81.
Pamera strawberry, **Rec. X**, 660.
Pamera vineta, notes, **Rec. X**, 368.
 Pampas grass, notes, **Rec. IV**, 654.
 Pamperos storms, **Rec. XI**, 429.
 Pamphila, new species, **Rec. XI**, 174.
Pamphila—
angulades, notes, **Rec. IX**, 260.
ethlius, notes, **Rec. III**, 318.
Pamphilus flaviventris, notes, **Rec. VIII**, 909.
 Pamunkey—
 marl, analyses, **Rec. I**, 138.
 phosphate, analyses, **Rec. VII**, 295, 380; **VIII**,
 561.
Panax quinquefolium. (See *GINSENG*.)
Panchlora—
 sp., notes, **Rec. III**, 414.
viridis, notes, **Rec. III**, 183.
 Paneratum, varieties, **Rec. IX**, 842.
 Panereas—
 digestion, leucin in, **Rec. VI**, 615, 869.
 effect—
 of removal on digestibility and absorption
 of fat, **Rec. IX**, 1079.
 slow destruction, **Rec. V**, 349.
 on assimilation of food, **Rec. IX**, 1079.
 extract—
 as affected by borax, **Rec. XI**, 962.
 for artificial digestion of feeding stuffs,
Rec. V, 1032.
 Pancreatic—
 ferments, inversion of starch by, **Rec. VII**,
 614.
 juice, function in resorption of fat, **Rec. IX**,
 1079.
 and peptic digestion, **Rec. XI**, 576.
Pandelectegus hilaris, notes, **Rec. X**, 168.
 Panic grass—
 affected by plant lice, **Rec. V**, 990.
 bitter, notes, **Rec. XI**, 423.
 broad-leaved, analyses, **Rec. V**, 64.
 creeping—
 analyses, **Rec. V**, 64.
 notes, **Rec. XI**, 423.
 double, analyses, **Bul. 2**, **I**, 108.
 dwarf, analyses, **Rec. VI**, 403.
 fall, analyses, **Bul. 2**, **I**, 108.
 hairy flowered, notes, **Rec. X**, 343.
 Mexican, notes, **Rec. VI**, 97.
 panicked, analyses, **Rec. III**, 629.
 pigmy, **Rec. IX**, 922.

Panic grass—Continued.

prolific—

culture experiments, Rec. X, 244.
notes, Rec. I, 183.

red, notes, Rec. VI, 97.

"showy," notes, Rec. VI, 94.

small, analyses, Rec. VI, 403.

two-edged, analyses, Rec. V, 64.

Panic grasses, analyses Rec. V, 64.

Panicularia—

borealis, notes, Rec. IX, 421.

brachyphylla, notes, Rec. IX, 421.

fluitans, notes, Rec. VI, 404.

laxa, notes, Rec. V, 741.

Panicum— (See also MILLET.)

agrostidiforme, notes, Rec. XII, 760.

agrostoides, notes, Rec. IV, 248.

albomaculatum, n. sp., notes, Rec. XI, 1015.

albo-marginatum, n. sp., notes, Rec. VIII, 567.

amarum, analyses, Rec. V, 64, 65.

anceps, analyses, Bul. 2, I, 108.

atlanticum, notes, Rec. IX, 421.

autumnale, analyses, Bul. 2, I, 108.

barbinode, notes, Rec. I, 69; VI, 94.

bifarium, notes, Rec. VIII, 867.

bnbosum, notes, Rec. II, 259; III, 280; X, 343.

bargn, notes, Rec. XII, 1014.

candiculatum, notes, Rec. VIII, 867.

capillare—

analyses, Bul. 2, I, 108; Rec. II, 321; V, 911; X, 343.

root system, Rec. IV, 46.

ciliatissimum, notes, Rec. II, 259; X, 343.

clandestinum, analyses, Rec. III, 629; VIII, 810.

colonum, notes, Rec. VIII, 306; XI, 220.

crus-corvi, notes, Rec. II, 24.

crus-galli. (See BARNYARD GRASS.)

crus-galli echinatum, notes, Rec. II, 321.

crus-galli muticum, notes, Rec. X, 343.

decompositum, notes, Rec. X, 416; XI, 220.

depauperatum, notes, Rec. VI, 403.

dichotomum, notes, Rec. II, 321.

effusum, notes, Rec. VIII, 401.

elytrochaetum, notes, Rec. VIII, 867.

equilaterale, Rec. X, 516.

filiforme—

analyses, Bul. 2, I, 108.

notes, Rec. V, 911.

frumentaceum—

culture experiments, Rec. III, 860; V, 333.

notes, Rec. III, 18.

germanicum, var., notes, Rec. VI, 45.

glabrum, notes, Rec. II, 321.

gracile, notes, Rec. X, 416.

halls, notes, Rec. X, 343.

implicatum, notes, Rec. X, 516.

inflatum, n. sp., notes, Rec. XI, 709.

italicum, notes, Rec. II, 24.

jumentorum, notes, Rec. VI, 94.

lachnanthum, notes, Rec. II, 259; III, 280; X, 343.

leibergii—

notes, Rec. IX, 328. •

n. sp., notes, Rec. IX, 45.

lencothrix, n. sp., notes, Rec. VIII, 567.

linearifolium, notes, Rec. X, 516.

manatense, n. sp., notes, Rec. VIII, 567.

Panicum—Continued.

marginatum, notes, Rec. VII, 750.

maximum, notes, Rec. VIII, 306, 401; X, 1089; XI, 482.

microcarpum, analyses, Rec. V, 64.

miliaceum—

culture experiments, Rec. III, 860.

notes, Rec. III, 51; VI, 714; VII, 121; X, 629.

silage, analyses, Rec. VI, 331.

multirameum, n. sp., notes, Rec. XI, 1015.

nashianum, notes, Rec. XII, 911.

nigratum, notes, Rec. VI, 531.

obtusum, notes, Rec. VIII, 306; X, 343.

octonodum, n. sp., notes, Rec. XI, 709.

orinum, n. sp., notes, Rec. XI, 709.

palmeri, notes, Rec. VI, 97.

parrispicnium, notes, Rec. IX, 421.

pilosum macranthum, n. var., notes, Rec. XI, 1015.

plicatum, notes, Rec. VIII, 401.

proliferum—

analyses, Rec. V, 64, 65.

notes, Rec. I, 183; IV, 248; X, 244.

proliferum geniculatum, notes, Rec. VI, 714.

prostratum, notes, Rec. VIII, 306.

pygmaeum, notes, Rec. IX, 922.

reticulatum, notes, Rec. X, 343.

reverchonii, notes, Rec. X, 343.

roseum, notes, Rec. VI, 97.

sanguinale—

analyses, Bul. 2, I, 108; Rec. III, 629.

notes, Rec. II, 321, 491, 551, 601, 658; III, 40; IV, 248; V, 161, 911; X, 343.

root system, Rec. IV, 46.

scoparium, notes, Rec. VI, 403.

sp., Rec. VIII, 749.

spectabile, notes, Rec. VI, 94; VIII, 401.

texanum, notes, Rec. I, 183; II, 691; VI, 715; X, 147, 343.

thurovii, n. sp., notes, Rec. XI, 709.

urvilleanum, notes, Rec. IV, 498.

verrucosum, analyses, Rec. V, 64, 65.

virgatum—

analyses, Rec. III, 629; V, 64, 65; VIII, 810.

notes, Rec. I, 168; II, 321; III, 51; VI, 403; VIII, 780; X, 343.

viscidellum, n. sp., notes, Rec. XI, 1015.

wrightianum, notes, Rec. X, 516.

Panicum—

dichotomous group, Rec. X, 825.

new species, description, Rec. XII, 827.

revision of genus, Rec. I, 168.

Panolis piniperda, notes, Rec. VIII, 911; IX, 776.

Panorpa sp., notes, Rec. II, 319.

Pansies—

diseases, notes, Rec. IV, 53.

life history, Rec. VII, 960.

tufted, Rec. IX, 951.

Pansy—

disease caused by *Colletotrichum*, treatment Rec. XI, 553.

evolution and synonymy, Rec. XI, 154.

new disease, Rec. XI, 257.

notes, Rec. IV, 654.

Panthea cornibita, notes, Rec. VI, 63.

Pantographa linata, notes, Rec. VI, 313.

- Pantry moth, notes, Rec. XII, 867.
- Papain—
as a digestive agent, Rec. VII, 835.
proteolysis, Rec. IX, 982.
- Papaveraceæ, pollen of certain, Rec. V, 650.
- Papaver—
somniferum, notes, Rec. V, 973.
somniferum setigerum, notes, Rec. V, 522.
- Papaw—
forms, Rec. XII, 957.
notes, Rec. III, 521; VII, 505; X, 440.
uses, Rec. XI, 744.
- Paper—
making wasps, use of grape bags by, Rec. III, 547.
manufacture from wood, Rec. V, 261; X, 356; XII, 563.
mill wastes, analyses, Rec. VIII, 768.
- Papilio—
asterias—
new food plant, Rec. IX, 966.
notes, Bul. 2, II, 58, 119; Rec. V, 101, 686; VIII, 146.
cresphontes, notes, Rec. V, 101, 409; X, 167.
erectus, notes, Rec. X, 769.
marcellus, notes, Rec. X, 167.
philenor, notes, Rec. X, 167.
troilus, notes, Rec. X, 62.
turnus, notes, Rec. II, 116; III, 55; V, 101.
turnus glaucus, notes, Rec. VI, 563.
- Papogonomyx albinasus*, notes, Rec. VI, 787.
- Pappophorum*—
apertum, notes, Rec. III, 549.
laguroideum, notes, Rec. III, 280.
wrightii, notes, Rec. III, 549.
- "Par oidium"—
analyses, Rec. VI, 110, 274.
for Lima bean mildew, Rec. V, 878.
- Paracasein, behavior toward rennet, Rec. VIII, 454.
- Paracletus cimiciformis*, notes, Rec. IX, 575.
- Paraffin—
and celloidin methods of embedding, combination, Rec. X, 321.
as a preservative, Rec. X, 519.
as an adulterant of oleomargarine, Rec. XI, 380.
embedded sections, Rec. VII, 372.
embedding—
table, Rec. X, 321.
technique, Rec. X, 321.
for section cutting, improvement, Rec. X, 321.
sectioning, technique, Rec. IX, 628.
- Para grass—
culture experiments, Rec. I, 69.
notes, Rec. VI, 94.
- Paragrene, analyses, Rec. XII, 67.
- Parajulus impressum*, notes, Rec. VI, 235.
- Paralocratus viridis*, notes, Rec. IX, 153.
- Parasitism—
of bees, notes, Rec. VI, 149; IX, 967, 1065; XI, 61, 271.
the spinal cord in the horse, Rec. XI, 394.
- Paramorpha aquilina*, notes, Rec. XII, 367.
- Parandra brunnea*, notes, Rec. X, 168.
- Paraplectrum fatidum*—
biological studies, Rec. X, 1096.
effect in ripening cheese, Rec. XI, 787.
- Paraplegia of mules, Rec. V, 203.
- Parasa chloris*—
food plants, Rec. IX, 862.
notes, Rec. III, 54.
- Parasite—
human, new, Rec. VI, 469.
in the eggs of the harlequin cabbage bug, Rec. V, 206.
of grape black-rot fungus, Rec. XI, 357.
white pine sawfly, notes, Rec. III, 291.
- Parasites—
animal. (See ANIMAL PARASITES.)
as affected by acid juices of host plants, Rec. X, 864.
catalogue, Rec. VI, 470.
classification, Rec. VI, 469.
cryptogamic, causing plant diseases, Rec. XI, 555.
economic value, Rec. VI, 266, 1008.
for controlling injurious insects, Rec. XI, 174.
the Hessian fly, Rec. III, 547; VI, 441, 1003; IX, 150; X, 1074.
fungus, of cultivated Rosaceæ, Rec. XI, 166.
harmless, Rec. VI, 61.
hosts, Rec. X, 192.
in improperly cooked food, Rec. VI, 472.
intestinal, in China, Rec. IX, 497.
malarial, Rec. IX, 96.
mantis egg, Rec. III, 811.
new, of Nebraska, Rec. IX, 995.
notes, Rec. III, 327.
of Angoumois grain moth, Rec. VII, 793.
black scale, Rec. III, 547.
flat scale, Rec. III, 546.
fresh-water fish, Rec. VII, 987.
hogs, Rec. III, 501.
nuclei and protoplasm, Rec. VII, 749.
poultry, Rec. VII, 791, 806; VIII, 335; IX, 96, 392.
sheep, Rec. II, 79; IX, 190; X, 594.
silkworms, Rec. III, 414; VIII, 909; XI, 561.
sugar beets, Rec. VII, 310; VIII, 69, 706.
wheat, Rec. XI, 59.
preservation of types, Rec. VI, 470.
relationship to hosts, Rec. XI, 817.
transmission of disease by, Rec. IX, 152.
tropical, studies, Rec. VIII, 471.
vegetable, Rec. VII, 310; IX, 74.
- Parasitic—
Exoasci, notes, Rec. V, 926.
gastro-enteritis in lambs, Rec. IX, 189.
leaf fungi, Rec. IX, 1061.
mimicry of insect hosts, Rec. VI, 149.
worms, Rec. IX, 274, 1092; XII, 889.
- Parasitism—
and symbiosis, Rec. X, 416.
as related to color of host, Rec. III, 812.
in grain rusts, Rec. VI, 647; VII, 225.
insects, Rec. VI, 149, 317, 440, 654, 655; VII, 793, 880, 882; IX, 151, 258, 372, 668.
sheep, Rec. IX, 693.
of *Aureobasidium vitis*, Rec. IX, 660.

Parasitism—Continued.

- of *Bacillus gallicus*, Rec. X, 166.
- Cucurbitaria berberidis*, Rec. IX, 527.
- Nectria cinnabarina*, Rec. VII, 513.

Parasol ant—

- exterminator for, Rec. VI, 838.
- notes, Rec. VII, 594.
- remedies, Rec. VIII, 147.

Parastasia, sexual dimorphism, Rec. XI, 870.

Parasymbiosis, studies, Rec. VIII, 749.

Parchment paper, relation to mold of butter, Rec. XI, 682.

Parenchyma sheath in leaves of dicotyledonous plants, Rec. IX, 330.

Paresis, parturient. (See MILK FEVER.)

Paria—

- aterrima*, notes, Rec. III, 290.
- canella*, notes, Rec. II, 405.
- l-notata*, notes, Rec. IV, 839.
- sexnotata*, notes, Rec. VI, 1008; VII, 593.

Paria—

- black, notes, Rec. V, 681.
- spotted, notes, Rec. VI, 1008.

Parietales, value of seed anatomy in classification, Rec. IX, 1027.

Paris, arboriculture school at, Rec. V, 131.

Paris Exposition—

- arboricultural and pomological conference, Rec. X, 900.
- exhibit of experiment stations, Rec. XI, 601.
- exhibit of experiment station veterinarians, Rec. X, 793.

Paris, trees of, Rec. VIII, 136.

Paris green—

- adulterated, analyses, Rec. IX, 74.
- adulteration, Rec. VI, 964; X, 375; XI, 22; XII, 65.
- analyses, Bul. 2, II, 59, 87; Rec. II, 275; III, 162, 876; IV, 58; V, 206, 562, 594, 884; VII, 835; VIII, 148, 416, 418, 712, 808; IX, 1072; X, 375, 458, 716; XI, 67, 314; XII, 65, 67, 168, 273, 581, 822, 907.
- and Bordeaux mixture, Rec. II, 217; V, 53.
- and Bordeaux mixture for—
 - apple disease, Rec. VIII, 897.
 - cankeworms, Rec. VII, 126.
 - codling moth, Rec. VII, 126.
 - fruit bark beetle, Rec. VI, 1003.
 - potatoes, Rec. III, 480.
 - rose bug, Rec. V, 792.
- and lime for—
 - apple leaf crumpler, Rec. IX, 157.
 - apple leaf folder, Rec. IX, 157.
 - apple scab, Rec. IV, 500.
 - cankeworms, Rec. VII, 879.
- and London purple for—
 - cabbage butterfly, Rec. VII, 144.
 - curculio, Rec. VI, 647.
- and resin lime mixture for cutworms, Rec. X, 271.
- as a fungicide, Rec. V, 309.
- an insecticide, Bul. 2, II, 59, 87; Rec. II, 63, 659, 718, 749, IV, 475, 932; V, 62, 63, 64, 685; VI, 987; VII, 882; VIII, 912, IX, 261.
- determination of arsenic, Rec. XI, 313, 614.

Paris green—Continued.

effect on—

- apple foliage, Rec. III, 870.
- bees, Rec. VIII, 506.
- foliage, Bul. 2, II, 32; Rec. II, 199, 215, 244, 408; III, 97, 174, 283; V, 684.
- for apple scab, Rec. V, 683, 1077.
- apple worm, Rec. IV, 561.
- army worms, Rec. VIII, 609.
- bagworms, Rec. VIII, 140.
- budworm of tobacco, Rec. V, 1079.
- cabbage worm, Rec. II, 719.
- cankeworm, Rec. X, 661.
- cigar-case bearer, Rec. VII, 228.
- codling moth, Bul. 2, II, 32; Rec. I, 213; II, 586, 599, 660, 718; III, 600; IV, 17, 566; V, 101; VI, 1007; VIII, 414; XI, 765; XII, 64.
- cottonwood leaf beetle, Rec. IX, 70.
- cotton worm, Rec. II, 193; VI, 1002.
- for cranberry—
 - insects, Rec. III, 309.
 - vine worm, Rec. III, 871.
- for cucumber beetle, Rec. II, 292.
- curculio, Rec. V, 593.
- cutworms, Rec. IV, 172; VIII, 708; X, 1069.
- eight-spotted forester, Rec. I, 11.
- elm leaf beetle, Rec. VII, 145.
- fall army worm, Rec. IX, 773.
- fringed-wing apple-bud moth, Rec. X, 565.
- garden webworm, Rec. I, 12.
- gypsy moth, Rec. V, 310.
- larvæ, Rec. IX, 676.
- leaf rollers, Rec. VII, 180.
- locusts, Rec. X, 1069.
- peach-twig moth, Rec. IX, 768.
- pistol-case bearer, Rec. IX, 257.
- plum curculio, Bul. 2, I, 170; Bul. 2, II, 118; Rec. I, 227; II, 290, 599; III, 621.
- potato beetles, Rec. II, 637; III, 395, 403; VIII, 145; X, 543.
- sawfly, Rec. XI, 62.
- squash vines, Rec. II, 416.
- sugar-beet beetles, Rec. IX, 257.
- sweet-potato prodenia, Rec. X, 972.
- tent caterpillars, Rec. III, 870.
- for tobacco—
 - leaf miner, Rec. X, 1069.
 - worms, Rec. VIII, 997.
- for walnut spanworm, Rec. V, 100; IX, 669.
- webworm, Bul. 2, I, 30.
- wireworms, Rec. III, 447.
- injurious effect on peach trees, Rec. X, 61.
- injury to foliage from, Bul. 2, II, 32.
- inspection, Rec. III, 444; IV, 661; VII, 882.
- inspection in Louisiana, Rec. V, 884.
- law, Rec. III, 444; XI, 67; XII, 66, 67, 168.
- legislation relating to, Rec. II, 85, 136.
- liquid, Rec. VIII, 1000.
- low-grade, Rec. XI, 298.
- method of analysis, Rec. IV, 661.
- methods of applying, Rec. II, 193, XI, 658.
- "New process," analyses, Rec. VIII, 141.
- preparation and use, Rec. III, 23, 298; V, 206; VII, 140, 231; X, 60; XI, 174, 262, 273, 371; XII, 975.

- Paris green—Continued.
 solubility, Rec. III, 174.
 substitutes, Rec. XII, 66.
v. Sheele's green as an insecticide, Rec. X, 268.
 with carbonate of copper, Rec. II, 217.
 flour for cotton worm, Rec. II, 318.
 fungicides, Rec. III, 96, 101, 525, 621, 864, 892.
 rosin, Rec. II, 217.
 soap, Rec. II, 217.
 sulphate of copper, Rec. II, 217.
- Park—
 management and forestry, Rec. IX, 953.
 planting, essentials, Rec. IX, 953.
 woodlands and plantations, Rec. X, 153.
- Parkinsonia aculeata*, notes, Rec. VIII, 605.
- Parks—
 and public grounds, ornamental planting, Rec. VIII, 409.
 floral designs, Rec. VII, 506.
 management and improvement, Rec. XII, 649.
- Parlatoria—
 affecting citrus fruits, Rec. XI, 657.
 monograph, Rec. XI, 476.
- Parlatoria—
pergandii, notes, Rec. V, 409; VI, 235; VII, 595.
 spp., notes, Rec. XI, 870.
theae eumyni, notes, Rec. IX, 1072.
victricis, notes, Rec. VII, 411.
zizyphi—
 notes, Rec. III, 183.
 remedies, Rec. XII, 975.
- Paroxya—
atlantica on cranberry bogs, Rec. IV, 564.
recta on cranberry bogs, Rec. IV, 564.
- Parrots—
 agency in transmitting lung diseases to man, Rec. XI, 793.
 septicemia, Rec. XI, 291.
- Parsley—
 butterfly, notes, Rec. VIII, 146.
 culture, Rec. IX, 357.
 culture experiments, Rec. VIII, 313.
 foreing, Rec. XII, 952.
 leaf spot, notes, Rec. XI, 759.
 notes, Rec. X, 547.
 piert, notes, Rec. IX, 956.
 seed germination experiments, Rec. V, 910.
 subirrigation, Rec. V, 680.
 varieties, Rec. I, 123, VI, 142, VII, 405; VIII, 889.
- Parsnip—
 fly, notes, Rec. IX, 74.
 grafted—
 on carrot, Rec. V, 1089.
 celery, Rec. V, 1089.
 nettle hairs of, Rec. VI, 506.
Phoma sanguinolenta on, Rec. VI, 311.
 root system, Rec. IV, 46.
 seed—
 germination experiment, Rec. V, 910.
 moth, notes, Rec. IV, 416.
 webworm, notes, Rec. IV, 667.
 wild—
 eradication, Rec. XI, 749.
 notes, Rec. V, 398, VI, 145; VIII, 892.
- Parsnips—
 analyses, Bul. 2, II, 78; Rec. III, 159.
 culture, Rec. IX, 357; XI, 241.
 electro-culture, Rec. V, 783.
 fertilizer—
 experiments, Rec. VI, 410, 890, VII, 579.
 formula, Rec. XII, 851.
 poisoning by, Rec. VII, 131, 589.
 ridge *v.* flat culture, Rec. III, 532.
 varieties, Bul. 2, II, 83; Rec. I, 254; VI, 890; VII, 203; VIII, 889, 977; XI, 51.
- Parsonia paddisoni*, notes, Rec. XII, 980.
- Parthenogenesis in bees, Rec. VII, 146; XII, 973.
- Parturient apoplexy. (*See* MILK FEVER.)
- Parturient paresis. (*See* MILK FEVER.)
- Parturition in cattle, Rec. V, 439.
- Parus—
ater, notes, Rec. IX, 230.
caeruleus, notes, Rec. IX, 230, 530.
caudatus, notes, Rec. IX, 230.
cristatus, notes, Rec. IX, 230.
major, notes, Rec. IX, 230, 530.
palustris, notes, Rec. IX, 230.
- Pas-de-Calais, France, Agronomie Station, Rec. VII, 631.
- Pasimachus*—
elongatus, notes, Rec. II, 116; III, 175; IV, 58.
 sp., notes, Rec. III, 228.
- Paspalum*—
ciliatifolium, notes, Rec. VI, 903.
conjugatum, notes, Rec. VIII, 401.
dilatatum, notes, Bul. 2, I, 189; Rec. I, 320; II, 658; IV, 248, 907, V, 577, VI, 721; VIII, 401; X, 245, 416, 432.
distichum, notes, Rec. III, 549; VIII, 306; IX, 142; X, 244, 343, 416, 432.
floridanum, analyses, Bul. 2, I, 108.
glabrum, notes, Rec. II, 321.
læve, notes, Rec. VI, 903.
lividum, notes, Rec. III, 549.
longiflorum, notes, Rec. X, 79, 184.
platycaule, notes, Bul. 2, I, 189; Rec. I, 320; II, 491, 601, 658; IV, 248.
 (*See also* CARPET GRASS.)
pubescens, notes, Rec. VIII, 401.
pubiflorum, notes, Rec. I, 320, III, 549.
pubiflorum glabrum, notes, Rec. X, 343.
purpurascens, notes, Rec. VI, 97.
scabrum, notes, Rec. VIII, 748.
scorbniculatum—
 analyses, Rec. VI, 982.
 culture experiments in India, Rec. V, 333.
simpsoni, n. sp., notes, Rec. VIII, 567.
villosissimum, n. sp., notes, Rec. VIII, 567.
- Paspalum*, hairy-flowered, notes, Rec. VI, 721.
- Passer domesticus*. (*See* ENGLISH SPARROW.)
- Passiflora*—
edulis, notes, Rec. VIII, 408.
incarnata, root system, Rec. IV, 46.
palmeri, n. sp., notes, Rec. IV, 374.
- Passion fruit in cold storage, Rec. V, 910.
- Passion vine—
 notes, Rec. XI, 354.
 root system, Rec. IV, 46.
- Pastel. (*See* WOAD.)
- Pasteur monument, notes, Rec. VII, 996.

Pasteurization—

and pure cultures in butter making, *Rec. IX*, 689.

apparatus—

for home use, *Rec. XI*, 387.

milk, *Rec. V*, 541; *VII*, 339; *VIII*, 441, 473, 834, 1032; *IX*, 388, 689; *X*, 493, 784; *XI*, 387.

skim milk, *Rec. XII*, 85.

water and other liquids, *Rec. V*, 345.

tests, *Rec. XI*, 390, 887; *XII*, 1081.

at high temperatures, effect on quality of butter, *Rec. XI*, 85.

cooling cream after, *Rec. V*, 1024.

effect on churning, *Rec. XI*, 680.

experiments, *Rec. V*, 1049.

in butter making, *Rec. IX*, 92, 492; *X*, 889; *XI*, 296.

cheese making, *Rec. XII*, 288.

dairying, *Rec. X*, 493.

Swedish creameries, *Rec. X*, 792.

influence on bacteria of milk, *Rec. VIII*, 168.

of cream. (*See CREAM, PASTEURIZATION.*)

milk. (*See MILK, PASTEURIZATION.*)

skim milk. (*See SKIM MILK, PASTEURIZATION.*)

wines, *Rec. II*, 99; *V*, 214; *XI*, 126.

Pasteurized—

cream. (*See CREAM, PASTEURIZED.*)

milk. (*See MILK, PASTEURIZED.*)

Pasteurizer, continuous efficiency, *Rec. XII*, 287.

Pasteurizing—

and sterilizing apparatus, new, *Rec. XI*, 714.

meaning of the term, *Rec. V*, 1049.

Pasteur's pure yeast, nature, *Rec. V*, 435.*Pastinaca*—

opaca, notes, *Rec. VI*, 506.

saliva. (*See PARSNIP.*)

urens, notes, *Rec. VI*, 506.

Pasturage—

alone and with grain ration for cows, *Bul. 2*, II, 24; *VII*, 62.

effect on—

fat content of milk, *Rec. XI*, 781, 782.

milk production, *Rec. XI*, 587, 782.

for pigs, *Rec. V*, 76.

restoring denuded forest areas, *Rec. XI*, 941.

grain feeding with, for sheep, *Rec. XI*, 779.

v. soiling—

and dry feed for sheep, *Rec. V*, 74.

for cows, *Rec. III*, 456.

v. dry fodder for milk production, *Rec. II*, 66.

peavine silage for cows, *Rec. XII*, 481.

with grain for young cattle, *Rec. II*, 209.

Pasture—

and pasture plants, *Rec. IX*, 643.

soiling crops compared, *Bul. 2*, II, 131.

grass—

analyses, *Bul. 2*, II, 125; *Rec. III*, 296, 455; *VI*, 1008.

digestibility, *Bul. 2*, II, 126, 127; *Rec. III*, 454, 455.

digestibility of nitrogen-free extract, *Rec. VI*, 155.

yield and composition, *Bul. 2*, II, 124.

grasses—

fertilizer experiments, *Rec. XI*, 339.

notes, *Rec. I*, 254; *VI*, 532; *X*, 547; *XI*, 145.

Pasture—Continued.

grasses—continued.

quality as determined by chemical analyses, *Rec. VI*, 152.

species, *Rec. III*, 41.

study, *Rec. VII*, 925.

lands—

and grasses, fertilizer experiments, *Rec. V*, 707, 710.

barnyard manure for, *Rec. V*, 933.

top-dressing, *Bul. 2*, I, 104.

plants—

for Arkansas, *Rec. XII*, 634.

test of mixtures, *Rec. XII*, 629.

poisoning, notes, *Rec. II*, 318.

summer, tests of forage plants, *Rec. XI*, 279.

thistle, notes, *Rec. III*, 893; *VII*, 689.

Pastures—

and live stock in Ontario, *Rec. VI*, 419.

artificial and natural, *Rec. X*, 432.

condition, *Rec. II*, 749; *IV*, 957.

crops for, *Rec. IX*, 829.

eradication of moss, *Rec. XII*, 251.

fertilizer experiments, *Rec. IV*, 787; *VI*, 398,

418; *VII*, 31, 299, 765; *VIII*, 119, 402; *IX*, 44,

349; *XI*, 641; *XII*, 75, 133, 338, 441, 1031.

improvement, *Rec. IX*, 134.

making, *Rec. XII*, 234.

management and care, *Rec. II*, 237; *XI*, 497, 927.

methods of establishing, *Rec. IX*, 833.

mixed, notes, *Rec. V*, 577.

mountain, *Plantago alpina* in, *Rec. V*, 925.

natural, *Rec. VI*, 45.

Norway, studies, *Rec. VII*, 681.

of Switzerland, *Rec. V*, 255.

permanent grass mixtures for, *Rec. II*, 4.

poisonous plants, *Rec. X*, 361.

prairie, renovating, *Rec. VII*, 27; *VIII*, 774.

renovation, *Rec. VIII*, 488; *IX*, 643.

seeding, *Rec. IX*, 829; *XI*, 1032.

sewage for, *Rec. VII*, 379, 573.

soil preparation, *Rec. IX*, 829.

spring, *Rec. VII*, 164.

treatment in Switzerland, *Rec. XI*, 734.

winter and summer, *Rec. X*, 547.

Pasturing—

geese, *Rec. IX*, 980.

of wheat, *Rec. I*, 214; *III*, 225; *IV*, 407.

Patent—

cattle foods, *Rec. IV*, 568; *V*, 66.

Office and Government work, *Rec. III*, 327.

Pathogenesis of saprophytic micro-organisms.

Rec. X, 613.

Pathogenic—

action of lactic-acid bacillus, *Rec. IV*, 985.

bacillus, nonmotile, in pigs, *Rec. V*, 512.

bacteria in domestic animals, *Rec. V*, 512.

influence of beef-pulp silage, *Rec. IV*, 519, 873.

organisms in manure, disappearance, *Rec. X*, 795.

Pathological Station at Rome, Italy, *Rec. IV*, 238.

Pathology—

and therapy of domestic animals, text-book

Rec. XII, 889.

investigations in Italy, in 1898, *Rec. XI*, 591.

of fungi, *Rec. VIII*, 412.

metabolism, *Rec. VIII*, 332.

plants, *Rec. VII*, 725; *IX*, 61; *XI*, 1099.

treatise, *Rec. XII*, 889.

- Pauropoda, morphology and classification, *Rec.* IX, 467.
- Pavia, Italy—
 Botanical Station, *Rec.* IV, 237.
 Experiment Station, *Rec.* IV, 237.
- Pavement ant, notes, *Rec.* X, 654.
- Pea— (*See also* PEAS.)
 and barley fodder—
 analyses, *Rec.* V, 596; XI, 882.
 digestibility, *Rec.* XI, 874.
 banana, culture experiments, *Rec.* IX, 41.
 beetle, notes, *Rec.* VII, 413, 700; IX, 74.
 blight, treatment, *Rec.* X, 447, 958.
 bran, analyses, *Rec.* V, 195; VI, 331.
 butterfly, notes, *Rec.* X, 343.
 fodder—
 as a soiling crop, *Rec.* V, 992.
 Canada, digestibility, *Rec.* VIII, 423.
 crops, *Rec.* XI, 632.
 forage—
 analyses, *Rec.* II, 243, 589, 666.
 for cows, *Rec.* II, 667.
 hulls, analyses, *Rec.* II, 504.
 leaf blight, notes, *Rec.* IX, 455, 656.
 leaf spot, notes, *Rec.* XII, 566.
 louse, destructive—
 notes, *Rec.* XI, 871, 952, 953; XII, 265, 362, 365, 367, 575, 580, 861, 862, 970.
 remedies, *Rec.* XI, 1099; XII, 165, 468.
 meal—
 analyses, *Rec.* IV, 569; VI, 444; VII, 295; XII, 169.
 composition and digestibility, *Rec.* II, 645.
 for colts, *Rec.* III, 391.
 pigs, *Rec.* II, 426, 647; III, 130.
 sheep, *Rec.* X, 780.
 steers, *Rec.* III, 129; V, 633.
 mildew—
 notes, *Rec.* IX, 656.
 treatment, *Rec.* X, 447; XI, 752.
 moth—
 notes, *Rec.* VII, 593; IX, 855; X, 866; XI, 863, 957.
 remedies, *Rec.* XI, 558.
 proteids, *Rec.* VIII, 371; X, 214, 219.
 root rot, notes, *Rec.* IV, 44.
 soup, preserved, analyses, *Rec.* VII, 708.
 square pod—
 culture experiments, *Rec.* VIII, 687; X, 245.
 notes, *Rec.* VI, 722; VII, 954.
 stem blight, treatment, *Rec.* XI, 751.
 weevil—
 four-spotted, notes, *Rec.* VIII, 503.
 heat as a remedy, *Bul.* 2, II, 119.
 injuries by, *Rec.* III, 18.
 kerosene emulsion for, *Rec.* III, 291.
 notes, *Bul.* 2, II, 118; *Rec.* 1, 12, 102; II, 71, 654, 659; III, 18, 175, 197, 359, 792; IV, 58, 82, 284, 437, 699; V, 410; VI, 65, 438, 562; VII, 43; VIII, 68, 610, 906; IX, 66; X, 866; XI, 470, 863.
 remedies, *Rec.* I, 12, 102.
- Pea tree—
 notes, *Rec.* III, 788.
 Siberian, notes, *Rec.* IV, 655; VI, 427; VII, 135; IX, 560.
- Pea vine—
 caterpillar, notes, *Rec.* IX, 458.
 clover—
 analyses, *Rec.* VI, 569.
 culture experiments, *Rec.* VI, 531.
 hay—
 analyses, *Rec.* II, 243, 589, 666; II, 284; IV, 733; V, 577; VI, 1008; VIII, 520; IX, 969; XI, 883; XII, 234.
 for steers, *Rec.* III, 284.
 roots, analyses, *Bul.* 2, I, 181.
 silage—
 digestibility, *Rec.* IV, 733.
 for pigs, *Rec.* IV, 441.
 v. pasture for cows, *Rec.* XII, 481.
 wheat bran for cows, *Rec.* VIII, 527.
- Pea vines— (*See also* COWPEAS and PEAS.)
 analyses, *Rec.* I, 233; II, 50, 315; V, 500; VI, 812.
 as a winter mulch for corn, *Rec.* V, 777.
 as fertilizer for—
 corn, *Rec.* II, 10.
 cotton, *Rec.* II, 10.
 oats, *Rec.* IV, 131.
 wheat, *Rec.* II, 372; III, 172.
- Peach—
 anthracnose, treatment, *Rec.* X, 558.
 aphis—
 black, notes, *Rec.* II, 281, 718; III, 309; IV, 839; V, 190, 592; VI, 546; VII, 766, 792; VIII, 68, 418, 906; IX, 856; X, 66, 165, 169, 766; XI, 170, 472, 952; XII, 664.
 black, remedies, *Rec.* II, 416; IX, 469; X, 660; XI, 64, 472.
 notes, *Rec.* III, 230; V, 101; XI, 929.
 parasites, *Rec.* II, 731.
 remedies, *Rec.* III, 889; VIII, 911.
 bark beetle, notes, *Rec.* VII, 230.
 bark borer, notes, *Rec.* VIII, 906; IX, 856.
 bark louse, notes, *Rec.* VI, 313.
 black knot, *Rec.* VII, 37; 766.
 black spot—
 notes, *Rec.* III, 810; VI, 546, 557; VII, 766; IX, 455; XI, 929.
 treatment, *Rec.* VIII, 801.
 blight. (*See* PEACH ROT.)
 blossoms, apparent resistance to frost, *Rec.* XI, 252.
 brown rot. (*See* PEACH ROT.)
 brown rust, treatment, *Rec.* VIII, 141.
 buds—
 development, *Rec.* XI, 851.
 dropping, *Rec.* X, 640.
 hardiness, *Rec.* IX, 841; X, 152.
 injury by cold, *Rec.* II, 235.
 microscopic study, *Rec.* III, 306.
 winterkilling, *Rec.* III, 865.
 winter protection, *Bul.* 2, I, 92; *Rec.* III, 865; XI, 498.
 crop, nitrogen and mineral matters in, *Rec.* VIII, 406.
 crown gall, notes, *Rec.* VII, 766; XI, 57, 1086.
 eureulio—
 notes, *Rec.* II, 246; III, 657; VI, 546; VII, 766; VIII, 68, 801; IX, 353; XI, 929.
 remedies, *Rec.* VI, 647.
 decay, notes, *Rec.* V, 401.
 diaspis, remedies, *Rec.* XI, 980.

Peach—Continued.

- disease similar to yellows, *Rec. XII*, 354.
- diseases—
 - in the Hudson Valley, *Rec. XII*, 155.
 - notes, *Rec. X*, 154, 860, 970; *XI*, 59, 167, 929.
- foliage, effect of—
 - arsenites on, *Rec. II*, 199, 215, 216, 244.
 - fungicides and insecticides on, *Rec. V*, 684.
- freckle, notes, *Rec. VI*, 234.
- frosty mildew, notes, *Rec. III*, 810.
- fruit mold. (*See* PEACH ROT.)
- fruit rot. (*See* PEACH ROT.)
- galls, notes, *Rec. X*, 558.
- growing for market, *Rec. VII*, 766.
- gummosis, *Rec. IX*, 762.
- leaf crumpling, *Rec. VIII*, 239.
- leaf curl—
 - as related to weather, *Rec. XII*, 358.
 - notes, *Rec. II*, 246; *III*, 810; *IV*, 837; *V*, 498, 827; *VI*, 546, 555, 557, 559, 560; *VII*, 513, 766; *VIII*, 68, 239, 705, 898; *IX*, 262; *X*, 155, 352; *XI*, 59, 164, 260, 552, 929; *XII*, 359, 360, 463, 762.
 - treatment, *Rec. III*, 878; *VIII*, 801, 898; *IX*, 262; *X*, 156, 352, 558, 871; *XI*, 164, 260, 357, 470, 651, 1059; *XII*, 237, 259, 762.
- leaf spot, treatment, *Rec. X*, 558.
- maggot, notes, *Rec. III*, 812; *V*, 514; *X*, 62.
- mildew—
 - notes, *Rec. VI*, 546, 557, 560; *VII*, 766; *XI*, 929.
 - treatment, *Rec. VIII*, 801; *X*, 558.
- mold, notes, *Rec. VII*, 220.
- moth—
 - Japanese, notes, *Rec. IV*, 84.
 - notes, *Rec. IX*, 262.
 - remedies, *Rec. III*, 889; *VIII*, 709.
- nematodes, *Rec. X*, 558.
- palm, notes, *Rec. VI*, 820.
- pin borer, notes, *Rec. VII*, 766.
- root borers—
 - notes, *Rec. VII*, 766; *VIII*, 68.
 - remedies, *Rec. X*, 558; *XI*, 558.
- root galls—
 - notes, *Rec. IX*, 568; *X*, 154; *XI*, 753, 929.
 - treatment, *Rec. IX*, 657.
- root knot, notes, *Rec. VII*, 766; *XII*, 859.
- root louse, remedies, *Rec. X*, 558.
- root rot, notes, *Rec. VIII*, 68.
- rosette—
 - as a possible cause of mosaic disease of tobacco, *Rec. XI*, 360.
 - contagious character, *Rec. III*, 486.
 - inoculation, *Rec. IV*, 955.
 - investigation, *Rec. III*, 486, 810.
 - notes, *Rec. VII*, 766; *VIII*, 607; *X*, 558; *XI*, 170, 369.
 - treatment, *Rec. II*, 749; *IV*, 169, 500, 835.
- rot—
 - notes, *Rec. I*, 36, 169; *III*, 172, 327, 810; *V*, 498, 591; *VI*, 546, 559, 909; *VII*, 141, 766; *VIII*, 68; *XI*, 929.
 - treatment, *Rec. III*, 864, 878; *IV*, 169, 500, 835; *V*, 787, 873; *VI*, 827; *VII*, 786; *IX*, 147, 458; *X*, 558, 871.
 - (*See also* MONILIA FRUCTIGENA.)

Peach—Continued.

- rust—
 - notes, *Rec. III*, 810; *VIII*, 702.
 - treatment, *Bul. 2, I*, 188; *Rec. II*, 32.
- sawfly, notes, *Rec. IX*, 1065.
- scab—
 - fungus, winter condition, *Rec. IX*, 565.
 - notes, *Rec. VII*, 220.
 - treatment, *Rec. X*, 558.
- scale—
 - insects, *Rec. VII*, 766.
 - new, notes, *Rec. VI*, 438, 439, 650; *VII*, 514; *X*, 160; *XI*, 369, 958.
 - notes, *Rec. VI*, 313; *VII*, 147, 514; *IX*, 261, 663; *X*, 768, 1062; *XI*, 63.
 - remedies, *Rec. VI*, 650; *IX*, 261; *XI*, 958.
 - soft, notes, *Rec. IV*, 418.
 - West Indian, notes, *Rec. VII*, 514; *VIII*, 68; *XII*, 1057.
- shot-hole—
 - disease, notes, *Rec. V*, 498.
 - effect, *Rec. X*, 757.
 - fungus disease, notes, *Rec. V*, 498; *VIII*, 68.
- spot—
 - fungus as a leaf parasite, *Rec. VI*, 487
 - notes, *Rec. XI*, 170.
 - treatment, *Rec. X*, 558.
- spotting, *Rec. I*, 169.
- stone—
 - oil as an adulterant of olive oil, *Rec. IV*, 986.
 - splitting, *Rec. XI*, 252.
- stones—
 - lignic acid in, *Rec. X*, 716.
 - xylan in, *Rec. X*, 716.
- thrips, notes, *Rec. XII*, 365.
- tree borer— (*See also* SANNINA.)
 - affecting plum trees, *Rec. XI*, 1064.
 - as affected by irrigation, *Rec. IV*, 666.
 - notes, *Bul. 2, I*, 26, 177; *Rec. II*, 70, 318, 659; *III*, 878; *VI*, 235, 546, 567; *VII*, 42, 593; *IX*, 160, 571, 767; *X*, 269; *XI*, 173, 268, 371, 476, 563, 929, 955; *XII*, 63, 1058.
 - remedies, *Rec. III*, 46, 175, 230, 298, 309, 313, 889; *IV*, 58; *V*, 402; *VIII*, 613, 801, 907; *IX*, 371; *X*, 370, 469, 656, 657, 661; *XII*, 63.
- tree borers, shot-hole, *Rec. VIII*, 905.
- tree parasite, notes, *Rec. VIII*, 68.
- trees—
 - abnormal growths, *Rec. XI*, 556.
 - analyses, *Rec. IV*, 252.
 - as affected by Paris green, *Rec. X*, 61.
 - affected by salt water, *Rec. VIII*, 494.
 - barnyard manure for, *Rec. IV*, 40; *V*, 397.
 - blistered, *Rec. IX*, 362.
 - from double pits, *Rec. X*, 352.
 - gypsum for, *Rec. V*, 397.
 - lime for, *Rec. V*, 397.
 - muriate of potash for, *Rec. IV*, 40; *V*, 397.
 - nitrate of soda for, *Rec. V*, 397.
 - spraying, *Rec. X*, 558.
 - superphosphate for, *Rec. V*, 397.
 - winter protection, *Rec. II*, 565; *III*, 445; *IV*, 166; *IX*, 835; *X*, 48, 397.
 - worn out, *Rec. VI*, 209.
- twig ashes, analyses, *Rec. X*, 1033

Peach—Continued.

- twig borer—
 - in Washington, *Rec. VI*, 441.
 - notes, *Rec. IX*, 571, 1065; *XI*, 498, 955; *XII*, 365, 861, 862.
 - remedies, *Rec. X*, 65, 565.
- twig disease, notes, *Rec. X*, 558.
- twig moth—
 - notes, *Rec. IV*, 417; *IX*, 858.
 - remedies, *Rec. IX*, 768.
- waste, analyses, *Rec. V*, 777.
- wilting, notes, *Rec. VI*, 557.
- winterkilling, *Rec. VI*, 55.
- wood, analyses, *Rec. X*, 232.
- yellow—
 - and black knot, *Rec. VII*, 37, 766.
 - as a possible cause of mosaic disease of tobacco, *Rec. XI*, 360.
 - as affected by salt water, *Rec. VI*, 437.
 - contagious character, *Rec. III*, 485.
 - effect of fertilizers, *Rec. II*, 105.
 - effect of injury from cold, borers, etc., *Rec. II*, 105.
 - experiments, *Rec. VI*, 830.
 - fertilizers for, *Rec. V*, 98.
 - history and characteristics, *Rec. I*, 169.
 - in nursery stock, *Rec. X*, 556.
 - investigation, *Rec. III*, 810.
 - nature and treatment, *Rec. III*, 846.
 - notes, *Rec. II*, 104, 246, 322, 508; *III*, 172; *IV*, 658, 838; *V*, 96, 498, 827; *VI*, 64, 233; *VIII*, 68, 318, 607, 702; *XI*, 170, 357, 369, 929, *XII*, 997, 1056, 1059.
 - treatment, *Rec. II*, 33, *X*, 153, 557.

Peaches—

- analyses, *Rec. II*, 243, 582; *IV*, 157; *X*, 754.
- and plums, relative hardness of fruit buds, *Rec. IX*, 841.
- as affected by—
 - spring frost, *Rec. XI*, 1044.
 - unusual cold, *Rec. XI*, 1041.
- budding, *Rec. VI*, 221.
- canning, *Rec. XII*, 946.
- classification of varieties, *Rec. VIII*, 601, 784, 985; *IX*, 318; *X*, 355; *XI*, 1048.
- clubbed branches, *Rec. III*, 772.
- cold storage for, *Rec. V*, 909.
- crossing, *Rec. III*, 403.
- culture, *Rec. II*, 8, 501; *III*, 306; *VI*, 424, 725; *VIII*, 50, 68, 889, 985; *IX*, 650, 755, 837; *XI*, 351, 851; *XII*, 1041.
- culture—
 - and management, *Rec. VI*, 546; *VIII*, 785; *X*, 48.
 - experiments, *Rec. IV*, 253.
 - in Belgium, *Rec. VI*, 299, 549.
 - Canada, *Rec. XI*, 929.
 - Europe, *Rec. VII*, 959.
 - Georgia, *Rec. VII*, 766.
 - Kansas, *Rec. XI*, 744.
 - Maryland, *Rec. XI*, 937.
 - Michigan, *Rec. VII*, 960.
 - New Jersey, *Rec. XI*, 51, 937.
 - New York, *Rec. VIII*, 313.
 - Pennsylvania, *Rec. IX*, 351.
 - pots, *Rec. XII*, 853.
 - United States, *Rec. X*, 152.
 - Utah, *Rec. V*, 53.
- dwarf stocks for, *Rec. VIII*, 313.

Peaches—Continued.

- early and late blooming varieties, *Rec. VI*, 54.
- fertilizer—
 - experiments, *Bul. 2, I*, 109, 125; *Rec. II*, 717; *III*, 293, 299, 300, 515; *IV*, 39; *V*, 397, 575, 778; *VI*, 816; *VII*, 686; *VIII*, 886, 887; *XI*, 148; *XII*, 558.
 - requirements, *Rec. XI*, 45.
- fertilizing, *Rec. XII*, 953.
- fertilizing constituents, *Rec. IV*, 158, 161.
- forcing, *Rec. IX*, 755.
- forcing under glass, *Rec. XII*, 853.
- grafting—
 - on cherry, *Rec. V*, 1089.
 - currants, *Rec. XI*, 850.
 - stocks, *Rec. X*, 352.
- gumming, *Rec. VIII*, 239; *X*, 154; *XI*, 57.
- hardiness, *Rec. XI*, 251.
- insecticides and fungicides for, *Rec. III*, 23.
- insects affecting, *Rec. IV*, 204; *VII*, 766; *IX*, 1065.
- irrigation, *Rec. V*, 691.
- irrigation in winter, *Rec. XI*, 847; *XII*, 1042.
- marketing, *Rec. VI*, 546, *VII*, 766.
- mulching, *Rec. V*, 584.
- new disease, *Rec. VIII*, 704.
- notes, *Rec. X*, 254, 547, 962; *XI*, 1047; *XII*, 945.
- nutritive value, *Rec. IV*, 160.
- parasitic disease, *Rec. XI*, 949.
- picking and marketing, *Rec. VII*, 766.
- premature ripening, *Rec. XI*, 754.
- pruning, *Rec. II*, 9; *VI*, 549; *VII*, 585; *X*, 152; *XII*, 55, 237.
- pruning v. thinning, *Rec. XII*, 1045.
- race types, *Rec. IX*, 245.
- resistance of foliage to insecticides and fungicides, *Rec. XI*, 147.
- root pruning, *Rec. XI*, 845, 1047.
- seedling varieties, *Rec. IX*, 841.
- self-pollination, *Rec. VI*, 810.
- self-sterile varieties, *Rec. XII*, 237.
- splitting of, *Rec. XI*, 252.
- thinning, *Rec. X*, 152, 848; *XII*, 1045.
- types of fruit branches, *Rec. XII*, 55.
- varieties, *Bul. 2, I*, 21, 23, 183; *Rec. I*, 84, 229; *II*, 9, 25, 147, 295, 355, 372, 411, 426, 556, 599, 642; *III*, 246, 361, 386, 403, 589, 701, 723, 865; *IV*, 166, 352, 556, 651, 652, 653, 728; *V*, 53, 190, 299, 302, 496, 585, 586, 587, 681, 786, 873, 877; *VI*, 52, 54, 55, 142, 546, 820, 901; *VII*, 34, 214, 405, 766; *VIII*, 134, 407, 702, 889; *IX*, 51, 244, 553, 837; *X*, 49, 254, 352; *XI*, 51, 147, 153, 251, 252, 547, 929, 930, 1036, 1044; *XII*, 237, 648, 798, 1044.
- winter spraying, *Rec. VII*, 883.

Peanut—

- and cotton-seed oils, differentiation, *Rec. XI*, 23.
- botany and chemistry, *Rec. V*, 728.
- bibliography, *Rec. VII*, 188, 681.
- butter—
 - analyses, *Rec. XII*, 279, 280.
 - food value, *Rec. XII*, 78.
- cake—
 - adulteration, *Rec. IV*, 381.
 - analyses, *Rec. VI*, 663; *VII*, 336; *VIII*, 153, 154, 810.
 - artificial digestion, *Rec. IV*, 87.

Peanut—Continued.

cake—continued.

- as a feeding stuff, Rec. V, 348.
- digestibility of albuminoids, Rec. V, 227.
- digestion experiments with, Rec. V, 1032.
- effect on milk, Rec. V, 824, 917, 968.
- examination, Rec. V, 733.
- fertilizing constituents, Rec. V, 934.
- for lambs, Rec. VII, 524.
- steers, Rec. IV, 608.
- lecithin content, Rec. V, 803.
- r. malt-sprouts-molasses for cows, Rec. XI, 885.
- sesame cake for fattening lambs, Rec. III, 266; V, 227; VII, 524.
- vetch seed for cows, Rec. VIII, 626.

crop, statistics, Rec. III, 42.

development, Rec. V, 346, 422.

disease, notes, Rec. X, 363.

feed—

- analyses, Rec. VI, 663; VII, 336.
- digestibility, Rec. VII, 317.

hay—

- analyses, Rec. III, 43; VIII, 520.
- as a feeding stuff, Rec. III, 44.

hulls—

- analyses, Rec. II, 589; III, 43, 148; V, 64.
- for cattle, Rec. V, 439.

husks, analyses, Rec. VI, 663; VII, 336.

kernels, analyses, Rec. III, 148; V, 64.

leaves, analyses, Rec. V, 64.

meal—

- analyses, Rec. II, 589; III, 43, 191; VI, 163, 931; VII, 336, 720.
- digestion coefficients, Rec. III, 192.
- examination, Rec. V, 1021.
- feeding experiments, Rec. VII, 63.
- for cows, Rec. III, 564; XII, 589.
- preparation, Rec. IV, 449.
- r. brewery residue for cows, Rec. XI, 81.

oil—

- acids, Rec. XI, 23.
- and meal, Rec. VII, 522.
- skim milk for calves, Rec. VIII, 720; IX, 874.
- by-products, examination, Rec. IV, 615.
- color reaction, Rec. VIII, 562, 668.
- determination in olive oil, Rec. X, 118, 413.
- for calves, Rec. VI, 663, 842, 931; VII, 64; IX, 874.
- fuel value, Rec. XII, 1072.
- manufacture, Rec. VII, 749; IX, 594.
- manufacture in France, Rec. XII, 399.
- uses in pharmacy and the arts, Rec. IX, 1095.
- roots, analyses, Rec. III, 148.
- soils, analyses, Rec. XI, 842.
- vine hay—
 - composition, Rec. V, 1082.
 - for cows, steers, and goats, Rec. V, 1081.
- vines, analyses, Rec. II, 589; III, 148; V, 64.

Peanuts—

African—

- culture experiments, Rec. V, 176.
- notes, Rec. VI, 215.
- analyses, Rec. II, 589.

Peanuts—Continued

breeding, Rec. XI, 1032.

culture, Rec. III, 43.

culture—

- and uses, Rec. VI, 803.
- experiments, Rec. II, 643; III, 85; V, 176; VI, 35, 215, 424, 542, 889; VII, 117; VIII, 402; IX, 243.
- in Egypt, Rec. V, 256, 934.
- India, Rec. VII, 681; XI, 842.
- Jamaica, Rec. X, 1039.

fertilizer experiments, Bul. 2, 1, 21; Rec. I, 3; XII, 1029.

food value, Rec. XII, 78.

for pigs, Rec. VIII, 817; X, 577, 1085; XI, 377; XII, 475.

Georgia, analyses, Rec. III, 148.

grinding, Rec. VI, 776.

injury by a true bug in China, Rec. IV, 84.

irrigating, Rec. X, 1039.

methods of planting, Rec. XI, 923.

notes, Rec. XII, 329.

Spanish—

- analyses, Rec. III, 148.
- ash analyses, Rec. XI, 231.
- culture experiments, Rec. IV, 145, 725; VII, 121, 295; XI, 927.
- varieties, Rec. VIII, 791.
- varieties, Rec. II, 149, 396; III, 85, 703; IX, 244.

Pear—

agrilus, notes, Rec. VIII, 911.

anatomy of fruit, Rec. VIII, 204.

and cherry slug—

- notes, Rec. XII, 167.
- remedies, Rec. VII, 147.

and quince leaf blight, treatment, Rec. III, 688, 878.

anthracnose, notes, Rec. VI, 311.

avocado. (See ALLIGATOR PEAR.)

bacterial blight, notes, Rec. IV, 838.

black rot, notes, Rec. IX, 762.

blight—

- beetle, notes, Rec. III, 889; IV, 417; VI, 740.
- germ, characteristics, Rec. X, 863.
- notes, Rec. III, 445, 479; VI, 431, 557, 560; VIII, 608; X, 451, 648, 865, 971; XI, 170, 260, 314, 753.
- treatment, Rec. I, 168; VII, 140; VIII, 499, 796, 899; IX, 362, 762, 851; X, 365, 449.

blister moth, remedies, Rec. XI, 956.

brown rot, notes, Rec. VII, 691.

core rot, notes, Rec. IX, 850.

cracking, treatment, Rec. IV, 500; X, 561.

crown gall, notes, Rec. IX, 762.

curltottage, cause and treatment, Rec. IV, 694.

decay, notes, Rec. V, 401.

disease, notes, Rec. II, 455; III, 810; IX, 1062.

diseases in the Hudson Valley, Rec. XII, 155.

fire blight, notes, Rec. III, 172; V, 497; VII, 218; X, 266.

flowers, pollination, Rec. VI, 47.

foliage, effect of hot water, Rec. V, 593.

fruit borer, remedies, Rec. X, 569.

gall gnat, remedies, Rec. IX, 73.

gall mite, notes, Rec. VII, 231.

Pear—Continued.

leaf blight—

fungicides for, Rec. III, 144.
 notes, Rec. I, 283; II, 32, 246, 318, 482, 502;
 III, 144, 172, 217, 445, 688, 846, 871; IV,
 401, 656, 658, 838; V, 60, 497, 591, 986; VI,
 555, 558, 560, 990; VII, 39, 875; VIII, 608,
 999; X, 450; XI, 260.
 treatment, Rec. I, 170; II, 321, 749; III,
 144, 172, 688, 846, 864, 878; IV, 168, 170, 500,
 955; V, 986.

leaf blister mite—

notes, Rec. II, 419; IV, 437; V, 402, 593, 883;
 VI, 740, 837; VII, 231; VIII, 906; IX, 262;
 X, 65, 458; XI, 170; XII, 365, 869.
 remedies, Rec. IV, 667; V, 883; X, 661.

leaf brownness, treatment, Rec. II, 173.

leaf buds, lecithin content, Rec. V, 803.

leaf rust, treatment, Rec. VI, 437.

leaf spot—

cause, Rec. VIII, 797.
 notes, Rec. IV, 658; VII, 875; IX, 762; X,
 450; XI, 759.

lyda, notes, Rec. VIII, 909.

midge—

antennal structure, Rec. IX, 467.
 in England, Rec. VI, 740.
 notes, Rec. IV, 57; VI, 148, 652, 835; VII,
 143, 697, 791; VIII, 611, 909; IX, 67, 73, 664;
 X, 66, 457; XI, 169, 272, 765; XII, 862,
 1061.
 remedies, Rec. IV, 57; VI, 148; VII, 791;
 VIII, 612.

parasitic diseases, Rec. XI, 949.

pectin, sugar from, Rec. IV, 612.

psylla. (See PEAR TREE PSYLLA.)

rust—

notes, Rec. III, 10.
 treatment, Rec. XII, 573.

sawfly—

notes, Rec. V, 101; VIII, 612, 909.
 remedies, Rec. XI, 766.

scab—

bibliography, Rec. V, 988.
 fungicides for, Rec. II, 49, 322; V, 61.
 notes, Rec. II, 482; III, 313, 479; V, 61, 497;
 VI, 316, 558; VII, 788, 875; XI, 255, 260,
 556; XII, 262, 463, 911.
 prevalence, Rec. II, 246.
 treatment, Rec. II, 33, 49, 322, 749; III, 403,
 892; IV, 471, 500, 658; V, 60, 61, 497, 877,
 986; VI, 999, 1001; VII, 125, 220, 223, 788;
 VIII, 60, 608, 705; X, 451, 1057; XII, 657,
 965.

scale, white, notes, Rec. IV, 418.

shoots, killing by excessive transpiration,
Rec. VI, 487.

slug—

notes, Bul. 2, II, 58; Rec. I, 12, 291; II, 24,
 70, 241; III, 55, 132, 198, 889; IV, 416; VI,
 654; VII, 35, 147, 215; VIII, 320, 417, 612,
 909, 999; IX, 467, 673, 856; X, 164, 165, 458,
 766, 1067; XI, 657, 766; XII, 167, 365, 869,
 974.
 remedies, Rec. III, 291; IV, 416; VII, 35;
 VIII, 320, 417, 999; IX, 467; X, 661.
 sooty disease, treatment, Rec. IX, 764.

Pear—Continued.

stocks—

Japanese v. French, Rec. X, 1042.
 selection, Rec. II, 173.

tree aphid, notes, Rec. XI, 95.

tree body blight, notes, Rec. XII, 61.

tree borer—

clear winged, notes, Rec. VI, 313.
 in Mississippi, Rec. X, 570.

notes, Rec. III, 876.

remedies, Rec. IX, 675.

sinuate, notes, Rec. VI, 443, 652; VII, 40,
 41, 696; IX, 67, 370; X, 457.

sinuate, remedies, Rec. VIII, 903; XI, 273.

tree diseases, notes, Rec. IX, 167.

tree hopper, notes, Rec. V, 498.

tree psylla—

notes, Rec. III, 414, 864; IV, 472, 473, 474,
 667, 851; V, 498; VI, 443, 652, 654, 835, 1008;
 VII, 143, 147, 313, 593; VIII, 142; X, 766;
 XI, 173, 370, 762, 952; XII, 368, 869.

treatment, Rec. III, 864; IV, 474; VIII, 142.

tree slug. (See PEAR SLUG.)

trees—

affected by woolly aphid, Rec. XI, 476.

pruning, Rec. XI, 548.

removal of lichens from, Rec. IV, 955.

Roestelia cancellata on, Rec. V, 653.

winter spraying, Rec. VI, 830.

tuberculosis, Rec. X, 859.

twig girdler, notes, Rec. III, 175.

vegetable, culture experiments, Rec. V, 189.

walnut scale on, Rec. VI, 440.

wood, analyses, Rec. IV, 252; X, 232.

Pears—

acid in, Rec. XII, 558.

analyses, Rec. II, 582; III, 928; IV, 59, 308, 518;
 X, 754; XI, 51; XII, 558.

as affected by unusual cold, Rec. XI, 1041.

ash analyses, Rec. XI, 157, 229; XII, 853, 1045.

"belted," Rec. IX, 57.

bud development, Rec. XI, 851.

budding, Rec. VIII, 791.

budding in winter, Rec. IV, 44.

cold storage, Rec. V, 909.

cordon, planting and training, Rec. VIII, 791.

crop outlook, 1892, Rec. IV, 500.

cross pollination, Rec. XII, 647.

cultivation, Rec. VIII, 227.

culture, Rec. III, 107; VIII, 52.

culture in—

Florida, Rec. XI, 52.

Hudson River Valley, Rec. XII, 1045.

New Jersey, Rec. XII, 146, 344.

pots, Rec. XII, 853.

drying, Rec. XII, 558.

evaporation, Rec. XI, 851.

failure to mature, Rec. VIII, 887.

fertilizer—

experiments, Bul. 2, I, 109.

requirements, Rec. XI, 45.

fertilizing ingredients removed from soil by,
Rec. II, 272.

flower development, Rec. XII, 22.

forcing under glass, Rec. XII, 853.

formation of knotty growths in, Bul. 2, I, 167.

frost injuries, Rec. VIII, 139.

Pears—Continued.

fruit development as affected by seed development, *Rec.* **XI**, 936.
 fruiting, *Rec.* **IX**, 139; **XII**, 1045.
 germination as affected by size of fruits and number of seeds, *Rec.* **XII**, 758.
 grafting, *Rec.* **VII**, 585; **IX**, 136.
 growing in high latitudes, *Rec.* **XII**, 548.
 injury by—

Bordeaux mixture, *Rec.* **XI**, 950.
 codling moth, *Rec.* **III**, 600.

insecticides and fungicides for, *Rec.* **II**, 408; **III**, 23; **V**, 878.

insects affecting, *Rec.* **IV**, 372; **V**, 438; **VII**, 792.

iron content, *Rec.* **XI**, 157.

Nectria on, *Rec.* **IX**, 149.

notes, *Rec.* **X**, 547; **XI**, 1047; **XII**, 945.

prickly. (*See* PRICKLY PEAR.)

root pruning, *Rec.* **XI**, 845, 1047.

Russian, varieties, *Bul.* **2**, **II**, 87; **XI**, 647.

self-sterile varieties, *Rec.* **XII**, 237.

sprayed—

analyses of skin and stems, *Rec.* **V**, 986.
 and unsprayed, *Rec.* **V**, 987.

spraying, *Rec.* **VII**, 139; **VIII**, 228, 240, 608; **XI**, 258.

sugar distribution in, *Rec.* **XII**, 558.

varieties, *Bul.* **2**, **I**, 21, 23, 66, 183, 190; *Bul.* **2**, **II**, 91, 135; *Rec.* **I**, 84, 229; **II**, 5, 25, 295, 356, 372, 392, 395, 411, 426, 556, 599, 642, 653, 668; **III**, 85, 356, 360, 361, 386, 403, 588, 685, 701, 722, 723; **IV**, 166, 555, 556, 652, 653, 727, 728; **V**, 53, 190, 299, 302, 496, 586, 587, 793, 877, 985; **VI**, 52, 55, 142, 424, 725, 820; **VII**, 34, 214, 405; **VIII**, 52, 133, 134, 228, 407, 408, 601, 791, 889; **IX**, 50, 51, 244, 353, 841; **X**, 49, 254, 352; **XI**, 152, 153, 154, 251, 252, 314, 451, 544, 547, 844, 850, 929, 1026, 1048; **XII**, 237, 648, 853, 1044.

varieties for cider, *Rec.* **III**, 928; **XII**, 54.

Pearson bean, culture experiments, *Rec.* **IX**, 41.

Peas— (*See also* PEA.)

analyses, *Rec.* **III**, 159, 375; **IV**, 59, 725, 733; **V**, 631, 875; **VI**, 931, 1008; **VII**, 614; **VIII**, 426; **IX**, 479, 538, 552, 754; **X**, 946; **XI**, 219, 737; **XII**, 79, 478.

and barley—

analyses, *Rec.* **XI**, 777.
 for soiling, *Rec.* **IV**, 480.

and buckwheat as a cover crop for orchards, *Rec.* **X**, 252.

cereals, crossing, *Rec.* **X**, 826.

corn for fattening lambs, *Rec.* **VIII**, 714; **IX**, 578.

and oats—

analyses, *Rec.* **III**, 375, 401; **IV**, 470, 724; **XI**, 777, 883.

culture experiments, *Rec.* **V**, 178; **IV**, 140.

digestibility, *Rec.* **XI**, 566.

fertilizer tests, *Rec.* **IV**, 470.

fodder—

analyses, *Rec.* **V**, 596; **IX**, 786; **XI**, 882.
 digestibility, *Rec.* **XI**, 874.

for cows, *Rec.* **V**, 1065; **X**, 295.

soiling, *Rec.* **IV**, 29, 480, 724.

mixed seeding, *Rec.* **IX**, 441.

silage, analyses, *Rec.* **V**, 195.

and tares for cows, *Rec.* **X**, 295.

Peas—Continued.

Ascochyta pisi on, *Rec.* **VII**, 44, 311.

ash analyses, *Rec.* **XI**, 37.

blackeye, as a silage crop, *Rec.* **VIII**, 778.

Canada field. (*See* FIELD PEAS.)

canned—

analyses, *Rec.* **IV**, 59; **V**, 220.

detection of copper, *Rec.* **X**, 20.

canning, *Rec.* **X**, 958.

Ceylon, notes, *Rec.* **X**, 254.

Chinese, *Rec.* **VI**, 218.

classification of garden, *Rec.* **V**, 1099.

continuous cropping, *Rec.* **VIII**, 687.

crossing, *Rec.* **X**, 826.

culture, *Rec.* **X**, 432, 542; **XI**, 642.

culture—

experiments, *Bul.* **2**, **I**, 24; *Rec.* **III**, 85;

IV, 140, 223, 985; **VI**, 296, 807; **VIII**, 308,

313, 407, 689; **IX**, 131, 244; **XI**, 43, 339;

XII, 229, 535.

experiments in India, *Rec.* **V**, 333.

experiments in Sweden, *Rec.* **V**, 808.

damping off, *Rec.* **XI**, 757.

deep or shallow planting, *Rec.* **I**, 36.

diseases, notes, *Rec.* **VII**, 39.

distribution of seeds, *Rec.* **IV**, 436.

double cropping with tomatoes, *Rec.* **XI**, 739.

edible pod, *Rec.* **XII**, 936.

effect of—

carbon dioxid on the form and structure

of plant, *Rec.* **XII**, 110.

copper sulphate in soil, *Rec.* **IV**, 15.

soil, *Rec.* **I**, 283.

English—

notes, *Rec.* **XI**, 1047.

varieties, *Rec.* **I**, 184.

extent of variation, *Rec.* **XI**, 736.

fertilizer—

experiments, *Bul.* **2**, **I**, 94; *Rec.* **III**, 388,

393; **IV**, 129, 130, 131, 346; **VI**, 720; **VII**,

307, 579; **X**, 33, 636; **XI**, 37, 842; **XII**, 54,

532.

formula, *Rec.* **XII**, 851.

field. (*See* FIELD PEAS.)

food value, *Rec.* **X**, 74; **XII**, 876.

for canning, culture, *Rec.* **XI**, 937.

catch crops, *Rec.* **IX**, 941.

forage, *Rec.* **III**, 376, 404.

green manuring, *Rec.* **III**, 590; **IX**, 123,

134; **XI**, 833.

jack-pine plains, *Rec.* **II**, 357.

pigs, *Rec.* **III**, 624; **VI**, 161; **XII**, 475.

forcing in pots, *Rec.* **XII**, 444.

fungus diseases, *Rec.* **VI**, 824.

germination—

and growth as affected by fatty acid salts,

Rec. **XII**, 1009.

and growth as affected by formic acid,

Rec. **XII**, 1009.

as affected by fertilizer, *Rec.* **VII**, 123.

affected by nitrate of soda, *Rec.* **X**, 849.

experiments, *Bul.* **2**, **I**, 130; *Rec.* **II**, 317;

V, 628, 910; **IX**, 454.

of weeviled peas, *Rec.* **III**, 18; **IV**, 437.

temperature for, *Rec.* **XI**, 1056.

grafting on beans, *Rec.* **V**, 1089.

grains and potatoes, as affected by chlorin compounds, *Rec.* **VI**, 720.

Peas—Continued.

green—

analyses, Rec. IV, 59.

for cows, Rec. III, 131.

ground, analyses, Rec. VI, 931.

horse beans and vetches for green manuring, Rec. XII, 534.

improvement, Rec. X, 151.

Indian, poisonous seed in, Rec. V, 1101.

inoculation—

experiments, Rec. XI, 753, 816.

with bean tubercle bacteria, Rec. XII, 1013.

in rotation, Rec. IV, 346.

iron sulphate for, Rec. V, 233.

liming, Rec. XI, 739.

liming on sandy soils, Rec. XII, 840.

nematodes in, Rec. IV, 783.

new varieties, Rec. IX, 560.

nitrogen, phosphoric acid, and potash content, Rec. IX, 552.

nitrogenous fertilizers for, Rec. V, 233, 254, 849.

notes, Rec. V, 577; IX, 1053; X, 547; XI, 850.

nutritive value, Rec. XI, 73.

partial v. complete fertilizers for, Rec. IV, 130.

phosphate, South Carolina, for, Rec. IV, 132.

phosphates for, Rec. IV, 132.

phosphoric acid for, Rec. IV, 129, 131.

planting at different depths, Rec. IX, 946.

production of nitric nitrogen, Rec. X, 618.

relation of grain weight to nitrogen content, Rec. XII, 327.

seed selection, Rec. V, 623; X, 240; XI, 630; XII, 340.

seeding at different dates, Rec. V, 623; IX, 830; X, 239, 836.

seeding by different methods, Rec. I, 36; IX, 946; X, 239; XI, 628, 737.

shallow tillage for, Rec. IV, 44.

softening on boiling as affected by soils and fertilizers, Rec. XI, 451.

spraying experiments, Rec. XI, 752.

studies of pods of different varieties, Rec. XI, 736.

sugar, attacked by Physopoda, Rec. XI, 1066.

surface v. subwatering, Rec. XII, 325.

training, Rec. XI, 736.

treatment with bisulphid of carbon, Rec. III, 359.

varieties, Bul. 2, I, 32; Bul. 2, II, 34, 57, 83, 88, 135; Rec. I, 35, 122, 188, 254; II, 4, 6, 7, 29, 51, 62, 69, 156, 240, 318, 342, 349, 372, 392, 395, 396, 511, 515, 556, 566, 580, 583, 586, 598, 607, 637, 641, 649, 659, 675; III, 82, 85, 128, 284, 356, 360, 386, 388, 395, 402, 444, 470, 480, 622, 724, 781, 791; IV, 253, 352, 436, 725, 734, 828; V, 53, 178, 189, 577, 623, 625, 679, 784, 870, 871, 874, 983; VI, 44, 52, 142, 218, 220, 415, 416, 417, 418, 419, 548, 635, 727, 886, 988; VII, 35, 120, 121, 124, 129, 209, 210, 212, 213, 302, 396, 405, 579, 580, 581, 671; VIII, 48, 223, 225, 231, 312, 790, 888, 889, 971, 972, 977; IX, 244, 350, 440, 827, 829, 830, 832, 833, 840; X, 239, 836, 846, 1034; XI, 51, 250, 442, 628, 632, 736, 842, 845; XII, 134, 229, 532.

Peas—Continued.

v. corn—

for lambs, Rec. XI, 666.

for steers, Rec. XI, 665.

vitality, Rec. XII, 565.

water—

absorption of seed, Rec. XI, 1056.

required by, Rec. V, 481.

weight and specific gravity, Rec. V, 521.

wild, notes, Rec. V, 529.

winter—

culture, Rec. VII, 401.

notes, Rec. V, 652.

varieties, Rec. VII, 401.

wire netting for, Rec. V, 827.

yield, Rec. IV, 568, 825.

yield—

in Great Britain, Rec. III, 835.

on old and new lands, Rec. XI, 753.

per acre, Rec. III, 394.

young attacked by *Brachyspora pisi*, n. sp., Rec. X, 155.

Peasants, Italian, nutrition and metabolism of, Rec. V, 1031.

Peat—

ammonia prepared from, Rec. V, 436.

analyses, Bul. 2, I, 173; Rec. I, 80; II, 666; III, 357, 471, 590; IV, 26, 436; V, 164, 165, 291; VI, 110, 287, 794, 980; VII, 294; VIII, 482, 757; IX, 339; X, 716, 1033; XII, 933.

and feces mixture—

analyses, Rec. VIII, 485.

experiment, Rec. VIII, 682.

and molasses, feeding stuff from, Rec. VI, 1023.

phosphoric acid for preserving manure, Rec. V, 330.

as a fruit preservative, Rec. XI, 250.

litter and fertilizer, Rec. VI, 400.

ashes, analyses, Rec. V, 164, 291; XI, 831.

bogs of Pennsylvania, reclamation, Rec. VIII, 757.

botanical studies, Rec. IX, 29.

crude and purified, analysis, Rec. V, 764.

determination of dry matter, Rec. VII, 554.

dust for preservation of eggs, Rec. IX, 981.

fermentation experiments, Rec. IX, 418.

for cleaning and disinfection, Rec. VI, 27.

packing grapes, Rec. V, 909.

fuel and litter, manufacture, Rec. IX, 644, 1043.

humus acids in, Rec. XII, 907.

industry, Rec. XII, 694.

litter, Rec. VIII, 720.

litter—

absorptive power, Rec. V, 144.

manufacture and application, Rec. VII, 198.

treated with sulphuric acid for bedding, Rec. IX, 96.

manure, Rec. VI, 287.

manure, analyses, Rec. XI, 626.

marshes—

reclamation, Rec. VIII, 298.

utilization, Rec. IX, 34, 236.

Peat—Continued.

molasses—

- analysis, Rec. X, 779.
- feed, effect on butter, Rec. VIII, 440.
- for horses, Rec. X, 778.

moss—

- analyses, Rec. V, 777.
- effect on Thomas slag, Rec. VII, 490.
- nitrogenous products, Rec. X, 424.
- pentosans, Rec. IX, 418.
- poudrette for barley, Rec. VI, 893.
- preparation for sand cultures, Rec. V, 768.
- rotted, analyses, Rec. XI, 719.
- use in preservation of ice, Rec. IX, 594.
- v. straw as litter, Rec. XI, 438.
- water determination in, Rec. XII, 907.

Peaty soil as litter, Rec. V, 144.

Pecan caterpillar, notes, Rec. IX, 1065.

Pecans—

- culture, Rec. X, 355; XII, 451, 751, 1045.
- culture in—
 - arid regions, Rec. VI, 729.
 - Florida, Rec. VI, 636.
 - Louisiana, Rec. IX, 756.
- food value, Rec. XII, 78.
- grafting, Rec. VIII, 890.
- injury by *Datana angustii*, Rec. X, 570.
- insects affecting, Rec. XII, 867.
- notes, Rec. IX, 353; X, 49.
- varieties, Rec. I, 229; IV, 556; V, 190; VII, 215.

Pecos River water for irrigation, Rec. XII, 834.

Pectase—

- and pectic fermentation, Rec. VI, 694, 869.
- in plants, Rec. VII, 656.

Pectic—

- compounds, properties, Rec. V, 433.
- matter of plants, Rec. XII, 420.
- substances in the roots of *Equisetum*, Rec. VIII, 29.

Pectin—

- compounds, investigations, Rec. VII, 185.
- of the gooseberry, Rec. XI, 906.
- the quince, Rec. XI, 906.
- produced by action of lime on cell wall of cane, Rec. VI, 280.

Pectins, notes, Rec. XI, 214.

Fedicule, notes, Rec. II, 609.

Fediculidæ—

- bibliography, Rec. XII, 867.
- notes, Rec. III, 547; VI, 654.

Fediculoides, bibliography, Rec. XII, 867.

Fediculoides—

- graminum*, n. sp., notes, Rec. XII, 970.
- tritici*, notes, Rec. VI, 838.
- ventricosus*, notes, Rec. XI, 767.

Fediculus, notes, Rec. XI, 263.

Peduncle, effect on dissemination of seed, Rec. VIII, 471.

Pegomyia—

- hyoscyami*, parasitic on sugar beets, Rec. VIII, 69.
- vicina*, notes, Rec. VIII, 240; IX, 73; XI, 954.

Pelargonium—

- inquans*, culture, Rec. IX, 756.
- spp., notes, Rec. V, 401.
- zonale*, culture, Rec. IX, 756.

Pelargoniums—

- bacterial disease, Rec. V, 1018.
- breeding, Rec. XI, 453.
- culture, Rec. IX, 951.
- dropsical, Rec. VI, 827.
- history, Rec. X, 964.
- modification of spurs, Rec. V, 923.

Pelcotoma flavipes, notes, Rec. X, 168.*Pelidnota punctata*, notes, Bul. 2, II, 119; Rec. VI, 989; IX, 371; XII, 665.

Péligot's absorption apparatus, modification of, Rec. XII, 515.

Pellicularia koleroga—

- affecting coffee, Rec. XI, 1065.
- on coffee, treatment, Rec. XI, 1060.

Peltophora picta, notes, Rec. IX, 262.*Peltandra rust*, notes, Rec. XII, 768.*Pempelia hammondii*, notes, Rec. III, 55; V, 990; VI, 313, 1007.*Pemphigus*—

- acerifolii*, notes, Rec. X, 273; XI, 952.
- attenuatus*, n. sp., notes, Rec. IV, 851.
- betæ*, n. sp., description, Rec. XII, 265, 266.
- boyeri*, notes, Rec. XI, 765.
- populi-transversus*, notes, Rec. X, 1066.
- poschingeri*, notes, Rec. X, 374.
- rubi*, notes, Rec. IV, 839.
- spp., notes, Rec. X, 164.
- tessellata*, notes, Rec. V, 64.

Penicillaria spicata, notes, Bul. 2, I, 189.*Penicillium*—

- brevicaulis* as a test for arsenic, Rec. XI, 652.
- crustaceum* causing mold of butter, Rec. XI, 683.

cupricum—

- cultures, Rec. VII, 466.
- notes, Rec. VII, 94.

glaucom—

- analyses, Rec. VIII, 867.
- biology, Rec. X, 725, 929.
- enzym, Rec. XII, 722.
- existence in solutions of organic salts, Rec. XI, 910.
- in Roquefort cheese, Rec. XI, 788.
- notes, Rec. IV, 53; V, 996; VI, 909; VII, 466, 874; XI, 164.
- on asparagus, Rec. IX, 761.
- studies, Rec. XII, 24.

italicum, a new species of sclerotium-forming mold, Rec. VI, 233.*luteum*—

- morphology of, Rec. V, 539.
- notes, Rec. XI, 164.
- spp., notes, Rec. XII, 860.

Penicillium—

- culture in copper sulphate, Rec. VII, 39, 94.
- destroying wood, Rec. X, 415, 1055.
- effect—
 - in ripening cheese, Rec. XI, 787.
 - on butter fat, Rec. XI, 977.

Peniophora globulifera, notes, Rec. VIII, 867.*Pennisetum*—

- cenchröides*, notes, Rec. VI, 94.
- longistylum*, notes, Rec. X, 244.
- orientale*, notes, Rec. VII, 581.
- spicatum*, notes, Bul. 2, II, 23; Rec. I, 122; II, 601; III, 30.

Pennisetum—Continued.*typhoides*—

culture experiments in India, Rec. V, 333.
notes, Rec. VI, 715; X, 244.

Pennsylvania College, winter course in agriculture, Rec. IV, 226.

Penny cress, notes, Rec. IV, 167, 699; V, 529; VIII, 703, 892; XI, 858.

Pentaglucooses—

in feeding stuffs, Rec. II, 92.

vegetable materials, determination, Rec. II, 685.

occurrence and determination, Rec. III, 748, 911.

Pentastomum, notes, Rec. II, 79.

Pentastoma tænioides, migration, Rec. III, 501.

Pentthina chionosema, notes, Rec. III, 54.

Penttilia misella, notes, Rec. VI, 651; XI, 1100.

Pentonic acid and pentose, Rec. VIII, 285.

Pentosans—

apparatus for determination, Rec. XII, 108.

detection, Rec. VIII, 284.

determination, Rec. V, 613, 1103; VI, 111, 189;
VII, 186, 651, 744, 830, 831, 832; VIII, 281, 286;
IX, 322; XI, 213; XII, 108.

digestibility, Rec. VI, 237; VII, 318, 336; XII, 665.

furfural test, Rec. VII, 462.

in cotton, Rec. IX, 225.

feeding stuffs, Rec. X, 79.

fodders, Rec. IX, 225.

peat, Rec. IX, 418.

plants, Rec. V, 1103; VI, 693; IX, 726.

soils, Rec. VI, 124.

turf, Rec. IX, 808.

Pentososes—

detection in plant and animal organisms, Rec. VII, 462; VIII, 106, 284, 513.

determination, Rec. IV, 388; V, 613; VI, 111;
VII, 651, 744, 830, 831, 832; X, 1003.

digestibility, Rec. IV, 618, 987; VI, 744.

formation in plants, Rec. VIII, 106, 513.

in urine, Rec. IV, 313.

Pentstemon—

barbatus, notes, Rec. IX, 247.

fructiformis, notes, Rec. VI, 114.

lævigatus digitalis, notes, Rec. III, 616.

Peonies, notes, Rec. IV, 654; X, 448.

Peony—

blight, notes, Rec. IX, 657.

disease, Rec. X, 561, 971.

disease, treatment, Rec. XI, 167, 752.

People's banks in—

Austria-Hungary, Rec. III, 905.

Germany, Rec. III, 905.

Pepino, notes, Rec. III, 618.

Pepper— (See also PEPPERS.)

adulteration, Rec. VI, 842; X, 970.

analyses, Rec. XII, 79.

anthracnose, notes, Rec. III, 307; VII, 894;
IX, 655; XII, 566.

black—

adulteration, Rec. V, 915.

analyses, Rec. X, 281; XI, 314.

chemical analysis, Rec. V, 916.

Dematophora necatrix on, Rec. VII, 311.

from Mangalore, Rec. IX, 1078.

notes, Rec. VI, 636.

Pepper—Continued.

bush, sweet, notes, Rec. IV, 655.

cayenne, analysis, Rec. X, 281.

chemical composition, Rec. VII, 745, 959.

culture in—

Bombay, Rec. XII, 245.

India, Rec. VII, 771.

decay, Rec. V, 401.

effect on—

digestion, Rec. VII, 148.

pancreatic digestion, Rec. VIII, 157.

fertilizer formula, Rec. XII, 851.

grains of Paradise in, Rec. V, 915.

Guinea, notes, Rec. V, 915.

leaf spot, Rec. III, 307.

leaved physalis, notes, Rec. III, 618.

Meleguetta, notes, Rec. V, 915.

saxifrage, notes, Rec. IX, 956.

tree as a house plant, Rec. VII, 586.

weed, notes, Rec. IV, 47.

white, analyses, Rec. X, 281.

Peppergrass—

California, notes, Rec. VI, 217.

notes, Rec. III, 308; IV, 167, 669; V, 398, 399
VI, 57; VIII, 703; IX, 143, 453, 758.

root system, Rec. IV, 46.

Peppermint—

culture and uses, Rec. V, 437; VI, 423.

hay, analysis, Rec. V, 782.

Peppers— (See also PEPPER.)

culture, Rec. IX, 357.

culture experiments, Rec. VIII, 407.

growing under glass in summer, Rec. XII,
1039.

herbaceous grafting, Rec. II, 508.

irrigation, Rec. VIII, 894.

mulching, Rec. VIII, 886.

notes, Rec. X, 254, 444, 547; XII, 340.

varieties, Bul. 2, I, 33; Rec. I, 123; II, 349, 395,
584; III, 82; IV, 436, 828; V, 189, 1074; VI,
142; VII, 124, 213, 405; VIII, 977.

Pepsin—

as affected by borax, Rec. IV, 870; XI, 962.

digestion—

cleavage of albuminoids, Rec. X, 313.

effect of chloroform, Rec. IV, 782; V, 732.

effect of different acids, Rec. VI, 751.

for determining source of nitrogen in fer-
tilizers, Rec. II, 644; III, 471.

investigations, Rec. VI, 917.

of casein, Rec. V, 822; VI, 1023.

feeding stuffs, Rec. IV, 87, 90; V, 1032.

wine in, Rec. VI, 931.

effect of quantity in digestion, Rec. XII,
477.

ferment, action of caustic alkali on, Rec. V,
729.

for increasing yield of butter, Rec. V, 218.

method for availability of nitrogen, Rec. XI,
720.

plasma, alkalinity, Rec. IX, 1029.

solution, action on dung, Rec. II, 267.

solvent power, Rec. XII, 108.

Pepsis—

boquei, notes, Rec. X, 166.

circularis, notes, Rec. X, 166.

inermis, notes, Rec. X, 166.

lucasil, notes, Rec. X, 166.

- Peptic—
 and pancreatic digestion, Rec. XI, 576.
 digestion—
 determination of products, Rec. XI, 510, 971.
 effect of boric acid, Rec. IV, 870.
 experimental methods, Rec. XII, 1077.
 Pepton salts of egg albumen, Rec. VI, 273.
 Peptones—
 adulteration, Rec. VII, 366.
 analysis, Rec. III, 578.
 as food, Rec. XII, 676.
 chemical composition, Rec. III, 488; IV, 292.
 commercial, analyses, Rec. IV, 389.
 composition and analysis, Rec. V, 1026.
 conversion into primary proteids, Rec. XII, 108.
 determination, Rec. XI, 311, 813.
 determination in peptic digestion, Rec. XI, 971.
 food value, Rec. V, 257.
 meat—
 composition, Rec. X, 79, 481.
 notes, Rec. XII, 1076.
 solubility in alcohol, Rec. XII, 108.
 Perchlorate—
 detection in nitrate of soda, Rec. X, 918.
 determination in—
 nitrate of soda and potash, Rec. VIII, 859, 860; X, 410, 716; XI, 505; XII, 308, 510.
 presence of chlorids and chlorates, Rec. XII, 510.
 in nitrate of soda, Rec. XII, 325.
 in nitrate of soda—
 effect, Rec. XI, 1026.
 injurious effect, Rec. IX, 826; X, 834.
 of potash. (See POTASSIUM PERCHLORATE.)
 Perchlorates—
 and chlorates in nitrate of soda, determination, Rec. XI, 505.
 effect on plants, Rec. XII, 824.
 Percolation, effect on elevation of ground water surface, Rec. XI, 517.
 Perdita, new species, notes, Rec. VII, 880.
 Perennity of mycelium, notes, Rec. VI, 17.
Perezia montana, notes, Rec. III, 103.
 "Perezol," as an indicator, Rec. XI, 814.
 Perfume—
 growing flowers for, Rec. XI, 754.
 liberation, Rec. VII, 838.
 of flowers—
 extraction, Rec. VI, 345; IX, 25, 196.
 production, Rec. IV, 448.
 Perfumery—
 farming in the United States, Rec. XI, 450.
 products, new, Rec. VII, 809.
 Perfumes—
 artificial, chemistry, Rec. XI, 618.
 chemistry, Rec. IX, 25.
 manufacture at Grasse, Rec. X, 396.
 plants producing, Rec. XI, 453.
 Pericarditis, traumatic, Rec. XII, 293.
 Pericarditis traumatica of cattle, diagnosed by digitalis, Rec. XI, 289.
Pericularia grisea, notes, Rec. IV, 50.
Peridermium of *Pinus strobus*, Rec. XII, 573.
Peridermium—
 pini—
 affecting pines, Rec. X, 59.
 notes, Rec. VII, 787; IX, 960; XII, 573.
 plowrightii, notes, Rec. XI, 262.
 sp., notes, Rec. VIII, 239.
 strobi—
 notes, Rec. IX, 960; X, 363; XI, 949.
 on pines, Rec. VIII, 996.
Peridroma—
 demutabilis, notes, Rec. V, 328.
 inciris, notes, Rec. VIII, 66.
 saucia—
 notes, Rec. VI, 915; VIII, 65, 66, 241.
 remedies, Rec. XI, 1065.
Perilampus—
 hyalinus, notes, Rec. III, 291.
 violaceus, notes, Rec. VI, 63.
Perillus—
 circumcinctus, notes, Rec. VII, 880; XII, 470.
 claudus, notes, Rec. II, 115, 116.
 Perimedullary zone, Rec. V, 1028.
 Periodic law, development, Rec. VIII, 287.
 Peripatus, history and classification, Rec. VII, 698.
Periplaneta—
 americana—
 notes, Rec. IX, 64.
 remedies, Rec. IX, 159.
 australasiae, notes, Rec. IX, 64.
 orientalis—
 digestive organs, Rec. XI, 767.
 notes, Rec. VII, 881; IX, 64.
 pennsylvanica, notes, Rec. IX, 463.
Peritelus hirticornis, notes, Rec. VIII, 70.
 Perithecia—
 of *Cladosporium herbarium*, Rec. V, 1030.
 Erysiphe tuckeri, Rec. IV, 591.
 grape downy mildew, Rec. VI, 557.
 grape white rot, Rec. VI, 304.
 Sphaerotheca castagnei, Rec. VII, 564.
 the Erysipheae, Rec. VII, 838.
 Uncinula spiralis, Rec. IV, 591; VI, 305.
Perithemia austenia, notes, Rec. IX, 370.
 Peritonitis of horses, studies, Rec. XII, 292.
 Permanganate of lime for purifying water, Rec. VI, 978.
 Permanganate of potash. (See POTASSIUM PERMANGANATE.)
 Permanganate solutions, standardization, Rec. VIII, 667.
 Permeability of precipitated membrane, Rec. V, 649.
Perognathus, revision of species, Rec. XII, 617.
Peromyscus oreas, n. sp., notes, Rec. IX, 1031.
Peronospora—
 alta, notes, Rec. V, 399.
 arthuri, notes, Rec. IV, 50; V, 399.
 australis, notes, Rec. III, 160.
 brassicæ, remedies, Rec. IV, 55.
 celtidis, notes, Rec. III, 810.
 corollæ, n. sp., notes, Rec. VII, 411.
 cubensis, notes, Rec. III, 10, 160, 297; IV, 51; V, 399.
 cyparissiae, notes, Rec. IV, 50.
 effusa, notes, Rec. II, 242; III, 161; IV, 50; V, 399; IX, 761.
 gangliiformis, notes, Rec. I, 83; IV, 472.

Peronospora—Continued.

- gonolobi*, n. sp., notes, Rec. III, 328.
hydrophylli, notes, Rec. III, 810.
leptosperma, notes, Rec. IV, 50.
maydis, notes, Rec. X, 56.
parasitica—
 as influenced by nature of host plant,
 Rec. VI, 1001.
 notes, Rec. III, 161, 307; IV, 50, 51; V, 399.
plantaginis, notes, Rec. VIII, 671.
potentillæ, notes, Rec. IV, 51; V, 399.
schachtii—
 notes, Rec. VI, 558.
 on beets, Rec. XI, 759.
schleideniana, notes, Rec. I, 283; II, 481.
seymourii, notes, Rec. VIII, 671.
sparsa, notes, Rec. V, 399.
trifolii on clover, Rec. IX, 957.
violæ, notes, Rec. III, 307; IV, 54, 56; X, 449;
 XII, 263.
viticola. (See GRAPE DOWNY MILDEW.)
whippleæ, notes, Rec. VII, 278.

Peronosporaceæ—

- and rainfall, Rec. I, 169.
 in the herbarium of Division of Vegetable
 Pathology, Rec. III, 810.
 new species, Rec. III, 810.
 notes, Rec. X, 416, 562.
 of New Jersey, Rec. I, 170; IV, 401.
 studies, Rec. IX, 362, 726.

Perophora melsheimeri, notes, Rec. II, 64.

"Peroxid of silicates"—

- analyses, Bul. 2, II, 59, 87; Rec. II, 581; V, 206.
 as an insecticide, Bul. 2, II, 59, 87.
 for cabbage worm, Rec. II, 719.
 cucumber beetle, Rec. II, 292.

Perrisopterus pulchellus, notes, Rec. IX, 663.

Persian melons, analyses, Rec. VIII, 54, 594.

Persicaria, giant, fecundity of, Rec. V, 1030.

Persimmon—

- decay, Rec. V, 401.
 fruit rot, notes, Rec. V, 498.
 root borer, Rec. VI, 440.
 root rot, notes, Rec. V, 498.
 shot-hole disease, notes, Rec. V, 498; VI, 498.
 thrips, notes, Rec. XI, 561.

Persimmons—

- American, Rec. VIII, 313.
 analyses, Rec. VIII, 229; XI, 149.
 botanical characters, Rec. VIII, 228.
 culture, Rec. VIII, 228; X, 854; XI, 1048.
 culture in Iowa, Rec. XII, 450.
 forms, Rec. XII, 957.
 improvement, Rec. XI, 52, 650.
 injury by psyllid, Rec. X, 570.
 Japanese—
 as affected by unusual cold, Rec. XI, 1041.
 culture, Rec. XI, 1048.
 culture experiments, Rec. VI, 637.
 notes, Rec. IX, 755; X, 547, 1042; XI, 148,
 1047.
 varieties, Rec. II, 642; III, 386; V, 496, 587;
 VI, 142, 820, 899; VII, 405; VIII, 407; X,
 1042.
 notes, Rec. XI, 999; XII, 945.
 seedless, analyses, Rec. VIII, 701.
 varieties, Rec. II, 295; IV, 728; V, 190; VII, 405;
 VIII, 228; X, 254; XI, 999.

Perymenium, revision of genus, Rec. XI, 121.*Pestalozzia*—

- breviaristata*, n. sp., Rec. VI, 1000.
brevipes, notes, Rec. V, 1100.
cliftoniæ, n. sp., Rec. VI, 1000.
funerea—
 notes, Rec. X, 1057; XI, 949.
 on *Thuja menziesii* and *Pseudotsuga douglasii*, Rec. V, 926.
fuscescens sacchari, notes, Rec. X, 57.
guelpini, notes, Rec. X, 971; XI, 948.
hartigii, notes, Rec. X, 1057.
lateripes, notes, Rec. III, 810.
lupinii, notes, Rec. X, 971.
mycophaga, notes, Rec. VII, 876.
soraueriana on *Alopecurus pratensis*, Rec. VI,
 311.
 sp., notes, Rec. VIII, 237.
tumefaciens, n. sp., Rec. X, 155.

Petals, anatomical study, Rec. V, 1028.

Petasites officinalis, notes, Rec. V, 912.

Petroleum—

- analyses, Bul. 2, II, 38; Rec. VIII, 286; XII,
 516.
 as an insecticide, Rec. VIII, 321; X, 470; XII,
 470.
 benzine as a solvent for fats of feeding stuffs,
 Rec. II, 488.
 crude—
 analyses, Rec. VII, 366.
 as an insecticide, Rec. XI, 868; XII, 298,
 369.
 preparation and use, Rec. XI, 868.
 engines, trial, 1893, Rec. V, 541.
 ether for determination of milk fat, Rec. XI,
 213.
 fuel value, Rec. VI, 942.
 motor in agriculture, Rec. VI, 848.
 motors, Rec. XI, 598.
 motors—

future, Rec. XII, 197.

use in agriculture, Rec. XII, 96.

sludge as an insecticide, Rec. III, 54.

Pe Tsai, notes, Rec. X, 547.

Petunias—

- double, notes, Rec. VI, 549.
 leaf chafer on, Rec. VI, 441.

Pewit, notes, Rec. IX, 530.

Peziza—

- alpigena*, notes, Rec. VII, 838.
linhartiana, notes, Rec. V, 530.
lyonsiæ, notes, Rec. VI, 233.
postuma, notes, Rec. XII, 462.
willkommii, notes, Rec. XII, 573, 958.

Peziza in mummified quinces, Rec. V, 438, 530.*Pezizineæ*, classification, Rec. XII, 520.*Pezotettix*— (See also MELANOPLUS.)

- chenopodii*, n. sp., Rec. VI, 563.
enigma, notes, Rec. III, 907; IV, 760.

Phaca batlica, notes, Rec. VI, 35.*Phacelia*—

- hispid a brachyantha*, notes, Rec. VI, 114.
perityloides, notes, Rec. VI, 114.
 sp., notes, Rec. V, 911.
tanacetifolia, notes, Rec. III, 598; V, 912; VI,
 903.

Phacelias, notes, Rec. X, 758.

- Phacidium*—
medicaginis, notes, Rec. II, 322; III, 295.
trifolii, notes, Rec. II, 421.
- Phacopteris lentiginosa*, notes, Rec. VII, 594.
- Phænogams*—
 list, Rec. II, 253.
 oxidizing ferments in, Rec. XI, 715.
- Phæogenes*—
hebe, parasitic on brown-tail moth, Rec. X, 1059.
impiger, notes, Rec. XII, 866.
- Phagocytes, relation to immunity, Rec. XI, 794.
- Phagocytosis, Rec. XII, 489.
- Phagocytosis—
 and leucocytes, notes, Rec. XII, 272.
 notes, Rec. V, 349.
 tubercle bacillus, Rec. XI, 193.
- Phalacridæ, monograph, Rec. XI, 562.
- Phalacroceræ replicata*, notes, Rec. X, 167.
- Phalaris*— (See also CANARY GRASS.)
amethystina, notes, Rec. IV, 498.
arundinacea—
 analyses, Rec. IV, 769, 770; VI, 569.
 as a forage plant in Sweden, Rec. IV, 771.
 notes, Bul. 2, I, 164, 189; Rec. II, 321, 329;
 III, 51; IV, 654.
 Puccinia on, Rec. V, 1100.
canariensis—
 culture experiments, Rec. VI, 807.
 notes, Rec. II, 321; VI, 985; X, 244.
intermedia—
angustata, notes, Bul. 2, I, 189; Rec. II, 601; III, 549.
 notes, Bul. 2, I, 189.
lemmoni, notes, Rec. IV, 498.
media—
 culture experiments, Rec. VI, 807.
 notes, Rec. X, 244.
- Phallin, studies, Rec. IX, 421.
- Phalloidæ of the United States, Rec. VIII, 380.
- Phallus*—
dæmomum, notes, Rec. X, 824.
impudicus, notes, Rec. X, 824.
- Phanconia quercicola*, notes, Rec. IX, 371.
- Phanerogamic parasites, structure of the haustoria, Rec. V, 650.
- Phanerogams—
 and cryptogams as epiphytes, Rec. VII, 466.
 fungi, relation between evolution of organs, Rec. X, 929.
 pteridophytes, North American, Rec. V, 90.
 assimilation of nitrogen, Rec. VII, 654.
 formation of proteids in darkness by, Rec. X, 822.
 morphology of leaves and stems, Rec. XII, 912.
 North American, index of new species, Rec. IV, 374.
 of South Dakota, Rec. XI, 817.
 western Texas, Rec. III, 103; IV, 84; VI, 114.
 on the Ohio University grounds, Rec. V, 280.
 parasitic of Great Britain, Rec. XI, 909.
 position of embryos of, Rec. V, 1027.
 protein synthesis in, Rec. XI, 1015.
 tracheal wood-element of, Rec. IV, 516.
- Pharmaceutical analyses, error, Rec. XI, 310.
- Pharmacy and drug laws, compilation, Rec. VI, 573.
- Phaselin, composition, Rec. V, 1081.
- Phaseolin—
 composition, Rec. V, 1080.
 from legumes, analysis, Rec. IX, 518.
- Phaseolus*—
aconitifolius, culture experiments in India, Rec. V, 333.
helveticus, notes, Rec. X, 147.
inamænus, analysis, Rec. X, 678.
multiflorus—
 abnormal swelling of roots, Rec. XI, 1061.
 as affected by carbon dioxide, Rec. XII, 110.
mungo—
 culture experiments in India, Rec. V, 333.
 notes, Rec. VI, 982.
radiatus, notes, Rec. II, 24; VI, 35.
retusus, notes, Rec. X, 542.
roxburghii, culture experiments in India, Rec. V, 333.
 sp., notes, Rec. IX, 41.
vulgaris—
 germination and growth in rarefied air, Rec. XII, 909.
 new evidence of American origin, Rec. XI, 250.
- Phaseolus*—
 pulvini, notes, Rec. X, 223.
 transformations of organic substances during germination, Rec. XII, 720.
- Phasgonophora sulcata*, notes, Rec. XII, 161.
- Phasianus reevesii*, tuberculous, Rec. XII, 892.
- Phasmia magnifica*, notes, Rec. IX, 965.
- Phasmiidæ of New Zealand, notes, Rec. XI, 766.
- Pheasants, tuberculosis in, Rec. XII, 892.
- Phelipæa ramosa*—
 injury to tobacco, Rec. XII, 572.
 notes, Rec. II, 22.
- Phelloderm, origin and distribution, Rec. IX, 330.
- Phenacetol as an indicator, Rec. XI, 311.
- Phenacoccus*—
hedera, notes, Rec. VI, 566.
heliantha, notes, Rec. VI, 438.
solenopsis, notes, Rec. X, 769.
- Phenacomys orophilus*, n. sp., notes, Rec. III, 184.
- Phengodes laticollis*, notes, Bul. 2, I, 178.
- Phenic acid, effect on yeast, Rec. VI, 507.
- Phenol, germicide power, Rec. XI, 697.
- Phenolhydrazin and lignin, color reaction between, Rec. V, 251.
- Phenological—
 investigations in—
 Giessen, Rec. VII, 373.
 Schleswig-Holstein, Rec. X, 827.
 notes on abnormal inflorescence, Rec. VI, 873.
 observations, Bul. 2, II, 135; IX, 31.
 observations—
 in Austria, Rec. XI, 223.
 Metz, 1891-1894, Rec. VI, 787.
 instructions for taking, Rec. VIII, 672, 675.
 on the Potomac, Rec. XII, 520.
 or thermal constants in vegetation, Rec. VI, 509.

- Phenology—
as related to biology and climate, **Rec. VII**, 19.
in Ohio, **Rec. XII**, 520.
- Phenolphthalein as an indicator, **Rec. VIII**, 860.
- Phenol-sulphonic method for nitrates in water,
Rec. VI, 189.
- Phenols—
as affected by salt, **Rec. VIII**, 472.
toxic effects on plants, **Rec. IX**, 421, 1028; **X**,
929.
- Phenyl for eelworms, **Rec. X**, 765.
- Phenylhydrazin for determining sugar, **Rec. V**,
251; **XI**, 705.
- Phielaviopsis ethacetica*, a cause of black rot of
sugar cane, **Rec. VI**, 311.
- Philadelphus, andrœcium of, **Rec. V**, 539.
- Philadelphus*—
coronarius, notes, **Rec. IV**, 656; **VIII**, 314.
gordonianus, notes, **Rec. IV**, 656.
grandiflorus, notes, **Rec. IV**, 656.
- Philæus*—
lineatus, notes, **Rec. II**, 654.
spumarius, notes, **Rec. II**, 654.
- Philippine Islands—
plant products, **Rec. XI**, 497.
trade, **Rec. XI**, 198.
- Philodromus pacificus*, notes, **Rec. X**, 273.
- Philonthus gopheri*, n. sp., **Rec. VI**, 440.
- Philopodon (Cucorhynchus) germinatus*, notes, **Rec.**
VIII, 612.
- Philothion, rôle in germination of seed, **Rec.**
VII, 747.
- Phimphorus, systematic position, **Rec. IX**, 965.
- Phimphorus spissicornis*, notes, **Rec. IX**, 467.
- Phippsia algida*, notes, **Rec. IV**, 951.
- Phlæodes diabolicus*, notes, **Rec. III**, 812.
- Phlæosenus dentatus*, notes, **Rec. VI**, 312.
- Phlebophora, genus, **Rec. V**, 818.
- Phlegethontius*. (See **PROTOPARCE**.)
- Phleospora*—
bigelovizæ, notes, **Rec. VI**, 114.
caraganæ, n. sp., notes, **Rec. XII**, 860.
- Phleum*—
alpinum, notes, **Rec. II**, 321.
alpinum scribnerianum, n. var., notes, **Rec. XI**,
319.
pratense. (See **TIMOTHY**.)
- Phlocosinus bicolor*, notes, **Rec. X**, 168.
- Phloëm, internal, study, **Rec. IV**, 692.
- Phlophagus*—
apionoides, notes, **Rec. X**, 168.
minor, notes, **Rec. X**, 168.
- Phlæophorus rhododactylus*, notes, **Rec. IX**, 470.
- Phlæothrips—
new species, **Rec. XI**, 476.
of olives, remedies, **Rec. XI**, 474.
- Phlæothrips*—
lucasseni, n. sp., notes, **Rec. III**, 278.
niger, notes, **Rec. VI**, 649.
- oleæ*—
anatomy and biology, **Rec. XI**, 474.
notes, **Rec. XI**, 474.
sp., as a parasite of the gypsy moth, **Rec. III**,
869.
- Phlæotribus liminaris*, notes, **Rec. VII**, 593; **VIII**,
906; **IX**, 856.
- Phloridzin and pilocarpine, effect on formation
of milk sugar, **Rec. IV**, 781.
- Phloroglucin—
condensation with furfurol, **Rec. VII**, 557.
for detection of formalin in milk, **Rec. IX**,
419, 521.
method for determination of pentosans, **Rec.**
IX, 322.
- Phloroglucinol—
and hydrochloric acid for detection of pento-
sans, **Rec. VIII**, 284.
purification for the determination of furfurol,
Rec. XII, 611.
- Phlox*—
austromontana, notes, **Rec. VI**, 114.
cæspitosa, notes, **Rec. III**, 52.
decussata—
diseases, **Rec. XII**, 260.
notes, **Rec. IV**, 654.
divaricata, seed production, **Rec. XII**, 855.
douglassi, notes, **Rec. III**, 52.
- Phlox*—
disease, **Rec. X**, 561; **XI**, 167; **XII**, 359.
diseases, treatment, **Rec. XI**, 752.
rush, **Rec. X**, 1049.
- Phloxes of western North America, revision, **Rec.**
XI, 1015.
- Phlyctena*—
andersoni, notes, **Rec. IV**, 956.
sp., notes, **Rec. IX**, 656, 657.
tertialis, notes, **Rec. X**, 1063.
- Phlyctenia ferrugalis*—
notes, **Rec. XII**, 575.
on violets, **Rec. IX**, 470.
- Phlyctinus callotus*, notes, **Rec. XI**, 760.
- Phobetron pitheciun*, notes, **Rec. III**, 54.
- Phoenix melanocarpa*, notes, **Rec. VI**, 548.
- Pholiota aurivella*, notes, **Rec. IX**, 960.
- Pholisora hayhurstii*, notes, **Rec. III**, 53.
- Phoma*—
albicans on chicory, **Rec. VII**, 964.
batata, notes, **Rec. II**, 416; **VI**, 987.
betæ—
investigations, **Rec. VII**, 39, 310.
notes, **Rec. V**, 438, 653, 731, 821; **VI**, 61;
IX, 363; **XI**, 163; **XII**, 458.
on beets, **Rec. VI**, 737; **XI**, 166, 468.
sugar beets, **Rec. IV**, 615, 872.
biformis, notes, **Rec. VII**, 838.
cinninoides, n. sp., notes, **Rec. V**, 822.
citricarpa, n. sp., notes, **Rec. XII**, 655.
cydoniæ, notes, **Rec. IV**, 401, 657.
flaccida, parasitic nature, **Rec. XI**, 1061.
hennebergii, notes, **Rec. VI**, 909.
napobrassica, attacking kohl-rabi, **Rec. VI**,
737.
omnivora, n. sp., notes, **Rec. XII**, 655.
persicæ, notes, **Rec. X**, 558.
pythæ, notes, **Rec. XI**, 262.
reniformis—
notes, **Rec. XII**, 260.
parasitic nature, **Rec. XI**, 1061.
parasitism, **Rec. XII**, 360.
rôle in grape black rot, **Rec. XI**, 1061.
sanguinolenta on parsnips, **Rec. VI**, 311.
solani, notes, **Rec. IV**, 51.
sordida affecting *Carpinus betulus*, **Rec. XI**,
1061.
stenospora, notes, **Rec. VIII**, 671.
uvicola, rôle in grape black rot, **Rec. XI**, 1061.

Phoradendron juniperinum, notes, Rec. II, 419.

Phorbia—

- brassicae*. (See CABBAGE ROOT MAGGOT.)
- ceparum*. (See ONION MAGGOT.)
- rubivora*. (See RASPBERRY CANE MAGGOT.)

Phormium tenax, notes, Rec. V, 92, 94.

Phorocera—

- concinata*, notes, Rec II, 116.
- edwardsii*, notes, Rec. II, 116.

Phorodon humuli—

- life history, Rec. XII, 862.
- notes, Rec. II, 660; III, 55; IV, 84; V, 236, 514; VI, 313; IX, 767.

Phosphate—

- and carbonate of lime in food of animals, Rec. V, 1101.
- Belgian, analyses, Rec. XI, 917.
- deposits—
 - analyses, Rec. XI, 230.
 - formation, Rec. VIII, 682.
- dicalcium, analyses, Rec. XII, 931.
- from Fernando Noronha, analyses, Rec. XI, 723.
- ground, analyses, Rec. XI, 39.
- manuring, Rec. IX, 436.
- market in Germany, Rec. IV, 614.
- monosodium, precipitation by magnesia mixture, Rec. XI, 108.
- nodules of Trichniopoly, Rec. X, 1034.
- soft, analyses, Rec. VI, 401; VII, 295.
- tricalcium, solubility, Rec. XII, 609.
- Wiborgh, Rec. XI, 230, 331; XII, 1036.
- Wiborgh, manufacture and agricultural value, Rec. X, 32.

Phosphate of alumina of Grand Connetable, Rec. VI, 798; VII, 25, 110, 190, 293.

Phosphate of ammonia. (See AMMONIUM PHOSPHATE.)

Phosphate of calcium. (See CALCIUM PHOSPHATE.)

Phosphate of lime. (See CALCIUM PHOSPHATE.)

Phosphate of magnesium, studies, Rec. III, 927.

Phosphate of potash. (See POTASSIUM PHOSPHATE.)

Phosphate of soda. (See SODIUM PHOSPHATE.)

Phosphates—

- acid, analyses, Rec. XI, 438.
- adulteration, Rec. V, 696.
- alkaline—
 - determination, Rec. V, 252.
 - manufacture, Rec. V, 255, 436.
 - preparation, Rec. VI, 795; VII, 293.
 - preparation of phosphorus, Rec. V, 817.
 - studies, Rec. VII, 271.
- American shipments, Rec. IX, 1044.
- analyses, Bul. 2, I, 173; Rec. I, 184; II, 142, 275, 280, 491, 582, 666; IV, 25, 244, 337; V, 288, 737; VI, 401, 797; VII, 295, 668; VIII, 389, 392, 584, 877; IX, 436, 739; X, 235, 426; XI, 438, 917.
- and casein, relation to lactic fermentation, Rec. IV, 987; V, 247, 260, 656, 814, 1045.
- and nitrate of soda—
 - agricultural value, Rec. IX, 37.
 - simultaneous use, Rec. VII, 755.
- and superphosphates compared, Rec. II, 483.

Phosphates—Continued.

as affected by—

- composting, Rec. VIII, 483.
- decaying organic matter, Rec. V, 255, 287; VI, 124.

as fertilizers, Rec. II, 267, 491; VII, 489; VIII, 485; IX, 435, 799; XI, 833.

biology, Rec. VIII, 880; IX, 808.

calcination, Rec. VII, 490.

comparative—

- effect of Redonda, Alto-Velo, and Los Roques, Rec. IV, 222.
- effectiveness on white mustard, Rec. XI, 436.
- fertilizer value, Rec. V, 224, 651, 702, 808, 819, 854, 924.
- tests, Rec. IV, 27, 861, 985.
- comparison, Rec. VI, 27, 201, 287, 401; VII, 851; IX, 938; X, 622, 733.
- comparison on grass, Rec. X, 936.
- consumption in production of cereals, Rec. XI, 529.

containing—

- fluorin, decomposition, Rec. VI, 980.
- iron and aluminum, analysis, Rec. III, 633.

crude—

- addition of lime to, Rec. VII, 293.
 - analyses, Bul. 2, I, 22; VIII, 299.
 - assimilability, Rec. VI, 368.
 - availability to crops, Rec. IV, 131; V, 819, 924.
 - comparative tests, Rec. IV, 131.
 - utilization by various plants, Rec. XI, 913.
- determination—
- by humic acid method, Rec. XI, 1004.
 - Reynoso method, Rec. X, 714.
- of alkaline, Rec. V, 252.
- alumina, Rec. IX, 620.
 - calcium, aluminum, and iron, Rec. IX, 321, 620.
 - iron and alumina, Rec. II, 267, 522; V, 126; VI, 368, 619, 691, 867; VII, 272, 457, 915; VIII, 286; IX, 224, 417.
 - iron oxid, Rec. XII, 107.
 - lime in, Rec. IV, 983.
 - phosphoric acid, Rec. V, 1009; VI, 625; VII, 853; IX, 620; X, 19; XI, 903.
 - source, Rec. III, 462.

determining relative value, Rec. XI, 1004.

effect on—

- growth and organs of plants, Rec. VII, 293.
- swamp soils, Rec. VII, 293.

excretion after ingestion of protein, Rec. XII, 871.

experiments in Belgium, Rec. VII, 24, 110; VIII, 308.

field and pot experiments, Rec. VI, 401.

fixation by humic acid, Rec. IV, 388.

Florida—

- agricultural value, Rec. VII, 490.
- analyses, Rec. I, I, 162, 471, 623; IV, 26, 337; V, 164, 165, 290; VI, 287; VII, 294, 295; VIII, 117, 561; IX, 225; XII, 933.
- history, composition and physical properties, Rec. II, 491.

Phosphates—Continued.

for clover, *Rec. V*, 929.

corn, *Rec. II*, 483, 649; *III*, 461; *IV*, 131; *V*, 778, 779.

cotton, *Rec. II*, 548, 642.

fruit, *Rec. IV*, 876.

hops, *Rec. XI*, 340.

meadows, *Rec. VII*, 25.

oats, *Rec. I*, 148; *II*, 649; *IV*, 129.

peas, *Rec. IV*, 132.

potatoes, *Rec. II*, 147, 149, 483, 649; *III*, 159.

roses, *Rec. IX*, 327.

serradella, *Rec. V*, 170.

soy beans and cowpeas, *Rec. V*, 779.

sugar beets, *Rec. III*, 750; *V*, 378; *VI*, 518; *XI*, 39.

sugar cane, *Rec. I*, 66.

tobacco, *Rec. II*, 225, 226.

tomatoes, *Rec. VIII*, 784.

turnips, *Rec. IV*, 132; *V*, 713.

various crops, *Rec. V*, 1070.

wheat, *Rec. III*, 294; *IV*, 27, 131.

in milk, *Rec. III*, 503; *IV*, 784, 873, 978; *V*, 949; *VIII*, 1032.

insoluble, *Rec. VII*, 757; *VIII*, 100.

insoluble—

as affected by plant acids, *Rec. VIII*, 192.

residue, *Rec. VIII*, 560; *XI*, 107.

lasting effect, *Rec. VI*, 130.

manufacture, *Rec. VII*, 24.

mineral— (*See also* MINERAL PHOSPHATES.)

availability of phosphoric acid in, *Rec.*

VIII, 877; *XI*, 527.

detection in phosphatic slag, *Rec. XII*, 819.

distinction between iron pyrites and oxid of iron in, *Rec. V*, 538.

method of increasing availability, *Rec. VII*, 198.

methods of analysis, *Rec. XI*, 903.

new and rare, *Rec. V*, 651.

phosphoric acid content, *Rec. VII*, 829.

monobarium and monocalcium, decomposition, *Rec. X*, 411.

natural—

agricultural value, *Rec. VI*, 187, 203.

analyses, *Rec. V*, 290, 861.

origin, *Rec. V*, 651.

studies, *Rec. X*, 35.

v. acid, *Rec. X*, 624.

notes, *Rec. XII*, 429.

of Algeria, *Rec. V*, 933; *VI*, 516, 521; *VII*, 293, 378, 490; *IX*, 1044; *X*, 35, 427.

America, *Rec. VI*, 882; *VII*, 670.

Arkansas, *Rec. X*, 337.

Canada, *Rec. VII*, 380.

Egypt, *Rec. XII*, 737.

Florida, *Rec. III*, 579; *IV*, 337; *VI*, 521; *XII*, 934.

Gard, *Rec. XI*, 331.

l'Herault, *Rec. VIII*, 881.

Japan, *Rec. XI*, 723.

Juniata County, Pa., *Rec. VIII*, 37, 767.

North Carolina, *Rec. VII*, 103.

Russia, *Rec. IX*, 1044.

soil as affected by acid solutions, *Rec. XI*, 131.

South Carolina, statistics, *Rec. VI*, 521.

Tebessa, *Rec. VII*, 293.

Phosphates—Continued.

of Tennessee, *Rec. VI*, 521; *VII*, 101, 380

Tennessee, analyses, *Rec. IX*, 740.

the Pyrenees, *Rec. X*, 833; *XI*, 723.

Tunis, *Rec. VII*, 490.

United States, *Rec. XI*, 723; *XII*, 736, 1025.

of iron and alumina—

conversion, *Rec. V*, 355.

hydrated, for fertilizer manufacture, *Rec. V*, 436.

Pamunkey, analyses, *Rec. VII*, 295, 380; *VIII*, 561.

pot experiments, *Bul. 2*, *II*, 46; *Rec. VI*, 401, 520, 795; *VII*, 108; *X*, 136.

precipitated, *Rec. IX*, 435.

precipitated, analyses, *Rec. II*, 101; *III*, 8.

production and consumption, *Rec. VII*, 197, 294; *XI*, 528.

reaction with iron sulphate, *Rec. III*, 927; *IV*, 206.

Redonda. (*See* REDONDA PHOSPHATE.)

reduction, *Rec. V*, 228.

residual effect on soils, *Rec. VI*, 130.

rich in iron, for superphosphate manufacture, *Rec. IV*, 388.

rock, analyses, *Rec. II*, 280, 666; *III*, 6, 168, 590; *VII*, 295; *VIII*, 389, 561, 563; *IX*, 538, 934, *X*, 919; *XI*, 39, 314, 719; *XII*, 129, 626.

silica content, *Rec. X*, 219.

solubility— (*See also* PHOSPHORIC ACID.)

in ammonium citrate, *Rec. V*, 355.

citric acid and ammonium citrate, *Rec. VIII*, 560.

the soil, *Rec. VII*, 22.

of phosphoric acid, *Rec. VII*, 826.

South Carolina. (*See* SOUTH CAROLINA PHOSPHATES.)

studies, *Rec. XI*, 529.

Tennessee. (*See* TENNESSEE PHOSPHATE.)

tests of different forms, *Rec. III*, 258.

transformation in the soil, *Rec. XII*, 429.

use on Gothlandic marshy soils, *Rec. IV*, 693.

v. kainit for cotton, *Rec. I*, 26.

Phosphatic—

fertilizers, *Rec. VIII*, 584; *IX*, 435.

fertilizers—

agricultural value, *Rec. VII*, 269; *VIII*, 388.

choice, *Rec. VII*, 293.

effect on lodging of grain, *Rec. XI*, 44.

effect on soils, *Rec. IX*, 821.

selection and use, *Rec. VII*, 293, 670, 757.

valuation, *Rec. IX*, 1022.

fossil shells, analyses, *Rec. VIII*, 377.

marls—

analyses, *Rec. IV*, 902.

of Virginia, analyses, *Rec. V*, 165.

material, analyses, *Rec. XII*, 530.

slag, *Rec. VIII*, 881.

slag—

adulteration, *Rec. III*, 211, 263, 264, 265; *IV*, 518; *V*, 1029; *VI*, 631.

agricultural value, *Rec. VIII*, 681; *IX*, 1044; *X*, 35.

analyses, *Bul. 2*, *I*, 182; *Rec. I*, 149; *III*, 8, 162, 523, 690; *IV*, 25, 902; *V*, 164, 290, 291; *VI*, 287, 401, 797; *VII*, 195, 669, 854; *VIII*, 485; *IX*, 538, 543, 636, 919; *X*, 428, 919; *XI*, 39, 831; *XII*, 626, 717.

Phosphatic—Continued.

- slag and kainit for—
 - hay, Rec. VI, 519.
 - meadows, Rec. VI, 522.
 - oats, Rec. VI, 519; VII, 497; VIII, 491.
- slag—
 - and nitrate of soda for corn and oats, Rec. VII, 291; VIII, 397.
 - as a fertilizer, Rec. IX, 51, 123, 339.
 - supplement to barnyard manure, Rec. XII, 429, 843.
 - as affected by—
 - lime, Rec. VIII, 584.
 - peat moss, Rec. VII, 490.
 - assimilability, Rec. VII, 17.
 - bases of valuation, Rec. X, 735.
 - basic, adulteration, Rec. III, 499.
 - basis of selling price, Rec. XI, 529.
 - change in weight on exposure to the air, Rec. XII, 428.
 - chemistry of, Rec. IV, 222, 387.
 - citrate solubility, Rec. VI, 370, 624, 631, 796; VII, 16, 198, 364, 459, 652, 745, 747, 757, 917; VIII, 281, 456, 763; IX, 26, 36, 436, 520, 617, 1022, 1023; X, 1004; XI, 109, 157, 505.
 - composition, Rec. III, 660.
 - cost of phosphoric acid from, Bul. 2, I, 39.
 - detection of adulteration, Rec. V, 472, 647, 696, 1097.
 - determination of citrate soluble phosphoric acid, Rec. X, 17, 714; XI, 109.
 - determination of fine meal in, Rec. V, 472.
 - determination of lime in, Rec. IV, 387, 502, 983.
 - determination of phosphoric acid in, Rec. IV, 387, 501, 516; V, 1009; VI, 625; VII, 16, 364, 652; VIII, 23, 100, 193; IX, 114; XI, 19, 505, 507, 1004.
 - effect on oats, after turnips, Rec. V, 709.
 - estimation of value, Rec. IV, 387.
 - examination, Rec. IV, 980; VI, 9.
 - fertilizing value, Rec. IV, 401, 882; VII, 942; VIII, 584.
 - for corn, Rec. II, 484; V, 779.
 - grapes, Rec. IX, 52.
 - grass, Rec. XI, 141.
 - marshy soil, Rec. XI, 39.
 - moist humus soil, Rec. VII, 757.
 - potatoes, Rec. II, 26, 484; III, 159; V, 702; VI, 893.
 - ruta-bagas, Rec. V, 713.
 - from different sources, Rec. V, 924; VI, 522, 624.
 - ground, for meadows, Rec. V, 526.
 - ground, for turnips, Rec. V, 709.
 - insoluble residue, Rec. X, 1004.
 - meal, analyses, Rec. VIII, 563.
 - patents, Rec. III, 755.
 - production and consumption, Rec. VI, 401; VII, 573; X, 533; XI, 917.
 - purchase, Rec. V, 651; VII, 380; VIII, 767.
 - reduction, Rec. VII, 110.
 - relation of basic calcium phosphate, Rec. III, 818.
 - sifting for analysis, Rec. XI, 505.
 - solubility, Rec. X, 35.

Phosphatic—Continued.

- slag—continued.
 - solubility in ammonium citrate as related to weight of crop, Rec. IX, 822.
 - spring application, Rec. VII, 854.
 - studies, Rec. XI, 419.
 - use, Rec. VI, 980.
 - valuation, Rec. XI, 34.
 - value of phosphoric acid in, Rec. IX, 826.
 - v. floats for oats, Rec. I, 147.
 - Martin slag, Rec. III, 661.
 - redondite as a fertilizer, Rec. XI, 136.
 - superphosphates, Rec. V, 806, 924; VI, 624; VII, 757.
 - Wiborgh phosphate as a fertilizer, Rec. X, 33, 34.
 - with green manuring for oats, Rec. V, 701.
 - substances in seeds, Rec. VII, 926.
- Phosphorescence—
 - physiology, Rec. IX, 227.
 - production, Rec. VI, 969.
- Phosphorescent myriapods, notes, Rec. II, 746.
- Phosphoric acid—
 - absorptive power of soils for, Rec. II, 635.
 - action of lime on the assimilability, Rec. II, 764.
 - and lime in ash of milk, Rec. V, 540, 639, 971.
 - and nitrogen—
 - in excrement mixtures, Rec. VIII, 761.
 - of peat and excreta mixture and pou-drette, Rec. IX, 436.
 - and peat for preserving manure, Rec. V, 225, 330.
 - as related to—
 - albumen of plants, Rec. IV, 613.
 - protein in plants, Rec. IV, 681.
 - assimilable, determination in cultivated soil, Rec. XII, 907.
 - availability—
 - as affected by fineness of fertilizers, Rec. V, 288.
 - of different forms, Rec. IV, 120.
 - available—
 - determination, Rec. XII, 306.
 - determination in soils, Rec. XII, 320.
 - in cotton-seed meal, Rec. IV, 901.
 - tankage, Rec. V, 288.
 - citrate method, Rec. V, 467; VI, 269.
 - citrate soluble, preparation in fertilizers, Rec. VI, 798.
 - comparison of different forms, Bul. 2, II, 43, 132; Rec. III, 461; VIII, 763; XI, 141; XII, 125, 839, 930.
- compounds—
 - changes under various conditions, Rec. II, 611.
 - in superphosphates, solubility in water, Rec. II, 611; V, 520.
 - stability of, Rec. II, 611.
 - content of soil, Rec. XI, 228, 822.
 - continuous use, Rec. II, 230.
 - determination, Bul. 2, II, 69; Rec. II, 90, 304, 489; III, 633, 720, 924; IV, 116, 313, 387, 501, 516, 584, 612, 677, 870, 908, 979, 983; V, 126, 159, 252, 278, 288, 289, 344, 433, 444, 466, 467, 470, 510, 511, 519, 777, 802, 1009, 1026, 1097; VI, 9, 15, 104, 110, 179, 180, 188, 269, 270, 367, 369,

Phosphoric acid—Continued.

376, 502, 609, 610, 625, 626, 864, 865; **VII**, 16, 88, 91, 181, 182, 192, 272, 364, 459, 551, 552, 650, 651, 652, 741, 745, 916, 921; **VIII**, 23, 100, 193, 272, 283, 377, 378, 456, 560, 860, 861; **IX**, 23, 26, 114, 321, 323, 405, 415, 416, 420, 618, 620, 723, 807; **X**, 16, 19, 117, 314, 410, 412, 513, 714; **XI**, 19, 105, 107, 108, 112, 505, 507, 508, 818, 1004; **XII**, 21, 713, 1004.

determination by—

Gladding method, **Rec. X**, 314.
molybdic method, **Rec. V**, 470; **VI**, 180, 188, 502, 610, 864; **VIII**, 100, 283.
Pemberton method, **Rec. VI**, 110, 376.
Reynoso method, **Rec. X**, 714.
uranium method, **Rec. VII**, 650, 651.
volumetric method, **Rec. III**, 831, 924; **VI**, 610, 690; **VII**, 272, 551, 652; **VIII**, 193, 283, 861; **IX**, 618.

determination, conversion tables for, **Rec. IV**, 221.

determination in—

cotton-seed meal, **Rec. II**, 92; **IV**, 902.
phosphates containing oxid of iron and alumina, **Rec. II**, 267; **III**, 15, 633.
soils, **Rec. V**, 126, 471; **VI**, 23, 119, 183; **VII**, 742; **X**, 714; **XI**, 505, 507, 508; **XII**, 211.
wine, **Rec. VI**, 868; **VII**, 271; **VIII**, 458, 562.

determination, mechanical stirrer for precipitating, **Rec. V**, 251, **VI**, 110, 615.

determination of—

citrate soluble, **Rec. II**, 921; **IV**, 461, 612; **V**, 466; **VI**, 105, 180, 367; **IX**, 337, 520; **X**, 17, 310; 714; **XI**, 505, 813.
citrate soluble, bath for, **Rec. V**, 278, 386.
citrate soluble, shaking apparatus for, **Rec. VII**, 185, 462.
soluble, **Rec. IV**, 612; **V**, 466; **VI**, 270, 367, 609.

determination, pipette for use in, **Rec. V**, 386.

effect on—

arabinose, **Rec. VIII**, 377.
cereals, **Rec. XI**, 529.
formation of chlorophyll, **Rec. IV**, 314.
wheat and barley, **Rec. X**, 245.

excreted by animals, **Rec. V**, 142, 143, 1020, 1021.excretion after ingestion of protein, **Rec. XII**, 871.

excretion as affected by—

casein, **Rec. IX**, 275.
castration, **Rec. XI**, 483.
muscular work, **Rec. IV**, 784, 976.

foraging power of plants for, **Rec. VII**, 111, 853; **VIII**, 757.free, in gypsum superphosphate, **Rec. V**, 471.from different sources, cost, **Bul. 2, I**, 39, 116; **Rec. II**, 483; **VIII**, 115.

magnesium pyrophosphate, **Rec. VIII**, 105.

importance in plant physiology, **Rec. X**, 223.in agriculture, **Rec. VII**, 379; **XI**, 1025.

in bone meal—

availability, **Rec. VI**, 398, 624, 626; **VII**, 293, 573, 826; **VIII**, 878; **IX**, 434.
solubility, **Rec. IV**, 222, 378.
solubility in citric acid, **Rec. XII**, 1006.
value, **Rec. IX**, 826.

Phosphoric acid—Continued.

in chlorophyll formation, **Rec. III**, 634.

ferruginous soils, **Rec. VII**, 938.

fertilizers, cost, **Rec. I**, 258.

magnesium pyrophosphate, calculation, **Rec. X**, 607.

manure, **Rec. V**, 141, 152, 153, 387.

mineral phosphates, **Rec. V**, 1009; **VII**, 459, 826, 829; **VIII**, 283.

mineral phosphates, availability, **Rec. VIII**, 877; **XI**, 527.

moor soils, **Rec. VII**, 99, 293; **X**, 1024.

plants as affected by water content of soil, **Rec. X**, 1024.

soil, availability, **Rec. X**, 32.

in soil water—

experiments, **Rec. XII**, 123.

studies, **Rec. XI**, 821.

utilization, **Rec. X**, 929, 936.

in soils—

amount and nature, **Rec. V**, 24, 471, 902; **XI**, 228, 822.

and fertilizers, availability, **Rec. VI**, 522.

cumulative effect, **Rec. V**, 224.

in sugar—

beets, **Rec. IX**, 29.

factory refuse, **Rec. VII**, 293.

in superphosphates—

assimilation, **Rec. VII**, 487.

reversion, **Rec. IX**, 823.

value, **Rec. IX**, 826.

in Thomas slag—

and ground bone, **Rec. IX**, 1044.

value, **Rec. IX**, 826.

new, **Rec. VII**, 185.of barley and malt, **Rec. VIII**, 330.physiological rôle, **Rec. XI**, 1008.precipitation by calcium bicarbonate, **Rec. XII**, 609.preparation, **Rec. VII**, 185.relation of amounts in fertilizers and in crop, **Rec. I**, 62.required by cultivated plants, **Rec. VII**, 108.retained by animal body, **Rec. V**, 1020, 1021.

reversion—

by lime and magnesia, **Rec. VII**, 104.

in soil, **Rec. VII**, 572.

rôle in vegetation, **Rec. X**, 122.separation in mixed fertilizers, **Rec. VIII**, 283.soil-soluble, value, **Rec. V**, 924, 1015.solubility, **Rec. VI**, 287; **X**, 935.solubility— (*See also* PHOSPHATES.)

in ether and water, **Rec. IX**, 323.

surface and subsoils, **Rec. XI**, 822.

soluble—

preventing reversion, **Rec. XII**, 308.

relation to absorbent constituents of the soil, **Rec. VII**, 488.

solutions, mechanical stirrer, **Rec. VI**, 110, 615.sources, **Rec. V**, 569; **XII**, 736.stirring machine for precipitating, **Rec. V**, 251.use in plant organism, **Rec. IX**, 526.valuation, **Rec. I**, 131.volatility, **Rec. V**, 433, 695.Phosphoric anhydrid and metaphosphoric acid, **Rec. VIII**, 103.

Phosphorite—

- calorimetric method of analysis, **Rec. V**, 253.
- fertilizing value, **Rec. XII**, 1024.

Phosphorites, sedimentary, **Rec. VIII**, 682.Phosphorous acid, constitution, **Rec. IX**, 115.

Phosphorus—

- and sulphur in moor plants, **Rec. IX**, 824.
 - compound yielding inosite, **Rec. IX**, 1023.
 - compounds—
 - in egg yolk, **Rec. XI**, 882.
 - of moor soils, **Rec. X**, 932.
 - content of muscular tissue as affected by work, **Rec. XI**, 778.
 - determination, **Rec. V**, 253; **IX**, 620, 1007, 1100.
 - effect on—
 - formation of fat, **Rec. XI**, 1076.
 - platinum, **Rec. VIII**, 562.
 - excretion as affected by casein, **Rec. IX**, 275.
 - factory refuse, analyses, **Rec. IV**, 25.
 - in animal and vegetable tissues, detection, **Rec. X**, 608.
 - ashes of coal and coke, determination, **Rec. VIII**, 466.
 - casein, **Rec. V**, 727, 922, 1009; **VI**, 1023.
 - casein, behavior in digestion, **Rec. V**, 252, 428, 960.
 - organic substances, determination, **Rec. XI**, 213, 1007.
 - in plants—
 - determination, **Rec. X**, 1004.
 - distribution, **Rec. VI**, 873.
 - in steel, iron, and iron ores, determination, **Rec. X**, 314.
 - organic, studies, **Rec. IX**, 1079.
 - poisoning, formation of fat in body, **Rec. X**, 80.
 - preparation from phosphates of alkalis, **Rec. V**, 817.
- Photobacterium sarcophilum*, notes, **Rec. VI**, 969.
- Photographic—
- apparatus for measuring altitudes attained by balloons, **Rec. IX**, 814.
 - camera for the microscope, **Rec. VII**, 469.
- Photographs of meteorological phenomena, **Rec. X**, 124.
- Photography—
- cloud, **Rec. VII**, 474; **VIII**, 755.
 - in meteorology, **Rec. XII**, 520.
 - station work, **Rec. III**, 45.
 - through opaque bodies, **Rec. VII**, 736.
- Photomicrographical camera, **Rec. X**, 321.
- Photomicrography—
- and photomicrographic cameras, **Rec. VII**, 469.
 - practical, **Rec. VI**, 280.
- Photopsis messillensis*, notes, **Rec. IX**, 372.
- Photosynthesis—
- and plant coloration, **Rec. XI**, 1011.
 - by light which has passed through leaves, **Rec. XI**, 1010; **XII**, 313.
 - in evergreen leaves in winter, **Rec. XI**, 910.
- Photo-therapy as a disinfectant, **Rec. XI**, 893.
- Phoxopteris—
- comptana*, notes, **Rec. II**, 405; **V**, 403; **IX**, 1065 **X**, 165, 369; **XI**, 761, 954.
 - nubeculana*, notes, **Rec. VIII**, 906.
 - sp., notes, **Rec. IV**, 839.

Phragmidium—

- fragariæ*, notes, **Rec. IV**, 414.
 - speciosum*, notes, **Rec. IV**, 50.
 - spp. in Ohio, **Rec. IV**, 414.
 - subcorticium*, notes, **Rec. IV**, 50; **V**, 400; **VII**, 141; **XI**, 360.
- Phragmites communis*, notes, **Rec. II**, 321.
- Phratora—
- cærulescens*, notes, **Rec. IX**, 862.
 - vitellina*, notes, **Rec. VIII**, 809; **IX**, 862.
- Phreatic waters in Nevada, **Rec. III**, 328.
- Phromnia marginella*, notes, **Rec. VII**, 593.
- Phryganidia californica*, notes, **Rec. XI**, 564.
- Phryganids, German, **Rec. IX**, 1071.
- Phryneta spinator* on figs, **Rec. VIII**, 417.
- Phrynosoma—
- cerroense*, n. sp., notes, **Rec. V**, 90.
 - goodei*, n. sp., notes, **Rec. V**, 90.
- Phthirius, notes, **Rec. XI**, 263.
- Phycis indiginella*, notes, **Rec. VI**, 316; **IX**, 371.
- Phycitinæ and Galleriinæ, monograph, **Rec. VI**, 439.
- Phycocyan, studies, **Rec. VII**, 271.
- Phycomyces nitens*, notes, **Rec. V**, 60; **IX**, 363.
- Phycomyces, notes, **Rec. III**, 810.
- Phyctena* sp., notes, **Rec. VI**, 437.
- Phydippus tripunctatus*, notes, **Rec. III**, 228.
- Phylactophaga eucalypti*, n. sp. on *Eucalyptus globulus*, **Rec. XI**, 564.
- Phyllachora—
- graminis*, notes, **Rec. IV**, 50.
 - trifoli*, notes, **Rec. II**, 421.
- Phyllactinia berberidis*, n. sp., notes, **Rec. X**, 1013.
- Phyllium—
- crurifolium*, coloring matter, **Rec. VI**, 152.
 - pulchrifolium*—
 - coloring matter, **Rec. VI**, 152.
 - notes, **Rec. VI**, 152.
- Phyllobius—
- oblongus*, notes, **Rec. VIII**, 909.
 - psittacinus*, notes, **Rec. VIII**, 807.
 - pyri*, notes, **Rec. X**, 65.
- Phyllobrotica nigratarsis*, notes, **Rec. X**, 769.
- Phyllocactus, culture, **Rec. IX**, 842.
- Phyllocoptes thomasi*, notes, **Rec. VII**, 595.
- Phyllostromia germanica*, notes, **Rec. VIII**, 612, 908; **IX**, 858.
- Phylloecus—
- flaviventris*, notes, **Rec. VI**, 439; **VII**, 141; **IX**, 574.
 - trimaculatus*, notes, **Rec. V**, 403.
- Phyllogonum luteolum*, notes, **Rec. VI**, 114.
- Phyllopertha horticola*, notes, **Rec. VII**, 882; **VIII**, 909; **IX**, 74; **X**, 65.
- Phyllophora membranifolia*, notes, **Rec. IV**, 715.
- Phyllorubin, a new derivative of chlorophyll, **Rec. XII**, 313.
- Phyllospora comosa*, notes, **Rec. XI**, 229.
- Phyllosticta—
- acericola*, notes, **Rec. XII**, 254.
 - althæina*, notes, **Rec. IV**, 53; **X**, 455.
 - apii*, notes, **Rec. III**, 884; **IV**, 926; **IX**, 457.
 - arida*, notes, **Rec. X**, 725.
 - bataticola*, notes, **Rec. II**, 416; **VI**, 987.
 - chenopodii*, notes, **Rec. II**, 242.
 - eucurbitacearum*, notes, **Rec. XI**, 357.
 - dammaræ*, notes, **Rec. IX**, 659; **X**, 562.

Phyllosticta—Continued.

- fragaricola*, notes, Rec. VI, 823.
funkia, notes, Rec. V, 401.
gelsemii, notes, Rec. III, 810.
halstedii, notes, Rec. III, 297.
hortorum, notes, Rec. III, 307; IV, 51; VI, 646; X, 446, 456.
hydrangeæ, notes, Rec. IV, 54.
labruscæ, notes, Rec. I, 319.
limitata, notes, Rec. IX, 57; X, 260, 1042.
macroguttata, notes, Rec. X, 725.
maculiformis, notes, Rec. XII, 464.
pirina, notes, Rec. IV, 354, 837; V, 308; VII, 875; X, 453.
rhododendri, notes, Rec. III, 810.
 sp., notes, Rec. III, 307; V, 788.
 sp. on beans, notes, Rec. IV, 52.
sphæropsoidea—
 attacking chestnuts, Rec. XI, 753.
 notes, Rec. VI, 556; X, 260.
violæ—
 notes, Rec. III, 307; IV, 54; V, 193; X, 449, 456; XI, 261; XII, 961.
 n. sp., notes, Rec. VI, 695.

Phyllotaxy as a guide to plant analyses, Rec. VIII, 380.

Phyllotocus macleayi robbing beehives, Rec. XI, 561.

Phyllotreta—

- albionica*, notes, Rec. II, 734; III, 784; V, 311.
armoraciæ, notes, Rec. X, 61.
nemorum, notes, Rec. VII, 700; XI, 562, 657; XII, 159.
pusilla, notes, Rec. VI, 315; X, 571.
sinuata, notes, Rec. III, 54.
vittata—
 notes, Rec. II, 5, 81, 734; III, 46, 54, 97, 198, 860; VII, 315; IX, 856.
 remedies, Rec. IV, 254, 416.

Phylloxera—

- anatomy and biology, Rec. V, 823, 1100.
 and American grapes, Rec. V, 824.
 biology of, Rec. V, 822.
 calcium carbide for, Rec. VIII, 912; IX, 466, 471; XI, 371, 1057; XII, 775.
 carbon bisulphid for, Rec. XII, 168, 665.
 commission—
 convention, Rec. V, 257.
 of Cape Colony, report, Rec. VII, 881.
 development of stomata on hickory by, Rec. IV, 83.
 disinfection of grape stock against, Rec. XI, 959.
 grafting of vines resistant to, Rec. VIII, 984.
 grape root grafts repellant to, Rec. VI, 300.
 in Austria, Rec. XI, 657.
 Brazil, Rec. IX, 261.
 California, Rec. VIII, 1003.
 Canada, Rec. IX, 856.
 Cape of Good Hope, Rec. IV, 84.
 Europe, Rec. VII, 518.
 Hungary, Rec. VIII, 907.
 Italy, Rec. XI, 477.
 New South Wales, Rec. XI, 477.
 Ontario, Rec. X, 165.
 Russia, Rec. IX, 262; X, 255.
 Spain, treatment, Rec. VI, 567.

Phylloxera—Continued.

- in Switzerland, Rec. XI, 763; XII, 166, 648.
 Switzerland, destruction, Rec. IX, 775.
 the canton of Geneva, Rec. V, 822.
 the Island of Elba, Rec. VII, 793.
 Turkey, Rec. VI, 440.
 Wurttemberg, Rec. VIII, 912.
 management of infested soils, Rec. VII, 595.
 notes, Rec. V, 101, 498, 654; VI, 316, 1007; VII, 968; VIII, 418; IX, 856; X, 62; XI, 173, 273; XII, 166, 168, 664, 862.
 on grape roots, Rec. IX, 575; XI, 262.
 pathogenic bacillus on, Rec. IX, 860.
 phylloxerol for, Rec. IX, 863.
 remedies, Rec. VI, 440, 742; VII, 700; VIII, 803, 807, 912, 983; IX, 776; X, 373, 567, 1076; XI, 175, 371, 463, 658, 959, 1057; XII, 167, 369, 975.
 repression, Rec. IV, 615.
 resin washes for, Rec. III, 54.
 schist for, Rec. V, 822.
 stations for treatment in Italy, Rec. IV, 239.
 sumach for, Rec. XII, 870.
 varieties of grapes resistant to, Rec. VII, 586; VIII, 983; XII, 151, 754, 775.

Phylloxera—

- quercus*, notes, Rec. XI, 657.
rileyi, notes, Rec. II, 81.
vastatrix—
 in Austria, Rec. XII, 469.
 means of distribution, Rec. XII, 663.
 notes, Rec. VI, 316; VII, 968; VIII, 803, 807; IX, 261, 571, 855; X, 62, 165; XI, 959.

Phylloxerol for phylloxera, Rec. IX, 863.

Phylogeny—

- of bacteria, Rec. XI, 125.
 Basidiomycetes, Rec. X, 321.

Phymata erosa eating bees, Rec. VI, 838.

Phymateus punctatus, notes, Rec. XI, 477.

Phymatidae, monograph, Rec. X, 272.

Phymatodes—

- amœnus*, notes, Rec. II, 730; III, 298.
juglandis, notes, Rec. III, 812.
variabilis, notes, Rec. IX, 962; XI, 764.

Physalis— (See also GROUND CHERRY.)

- alkekengi*, herbaceous grafting, Rec. II, 508.
capsicifolia, notes, Rec. III, 617.

franchetti—

- notes, Rec. VII, 504, 773.
 n. sp., notes, Rec. VI, 300.
peruviana, notes, Rec. III, 617.
pubescens, notes, Rec. III, 617.

Physalospora—

- betulina*, notes, Rec. VIII, 867.
woronini, n. sp., description, Rec. XII, 1056.
Physapoda, notes, Rec. VI, 742.

Physarum cinereum, notes, Rec. X, 612.

Physcus flavidus, notes, Rec. X, 661.

Physic nut, notes, Rec. XII, 219.

Physical—

- phenomena of the upper atmosphere, Rec. VII, 661.
 sciences, recent progress in, Rec. VII, 73.

Physics—

- and meteorology in universities, Rec. XI, 430.
 timber, Rec. V, 96.

Physiography of Maryland, Rec. XII, 119, 1098.

Physiological—

and bacterial work, thermostat for, Rec. VII, 273.

antiseptics, Rec. V, 1028.

constants, study, Rec. XI, 315.

importance of *myrosin*, Rec. V, 344, 654, 913.

investigations of G. Kühn, Rec. VI, 1.

wall charts, Rec. VIII, 868.

Physiology—

of internal secretions, Rec. IX, 392.

plasmolyzing agents, Rec. X, 825.

the leptom in angiosperms, Rec. VIII, 957.

wood growth, Rec. VII, 188; VIII, 204.

woody plants, Rec. VII, 563.

Physocarpus opulifolius, notes, Rec. IV, 656.

Physoderma leproides, notes, Rec. XI, 361.

Physopus—

atrata affecting peas, Rec. XI, 1066.

robusta affecting peas, Rec. XI, 1066.

Physostomum lineatum, notes, Rec. IX, 254.

Phyto-bezoar, unusual, Rec. X, 928.

Phytocoris militaris, notes, Rec. XI, 174.

Phytodecta, estivation, Rec. XI, 656.

Phytolacca decandra—

analyses, Rec. III, 629.

oxidizing ferments in, Rec. VIII, 749.

Phytolaccaceæ, anatomy of leaves, Rec. VIII, 28.

Phytomyza—

affinis, notes, Rec. V, 515.

aquilegiæ, notes, Rec. VII, 229; IX, 575.

nigricornis, notes, Rec. VII, 145.

orobanchia, notes, Rec. XII, 859.

Phytonomus—

nigrirostris, notes, Rec. XI, 561; XII, 271.

punctatus—

in Italy, Rec. V, 654.

notes, Rec. II, 269; III, 298, 309; VI, 149, 648; VIII, 505; X, 66; XI, 561.

Phytophaga, classification, Rec. X, 374, 770.

Phytophthora—

cactorum, notes, Rec. II, 482.

infestans. (See POTATO ROT and POTATO BLIGHT.)

nicotianæ, notes, Rec. VIII, 237.

omnivora—

affecting cacao, Rec. XI, 1061.

notes, Rec. XI, 362; XII, 657.

phaseoli, notes, Rec. II, 481; III, 10; IV, 956; X, 261, 1050.

Phytophthora of Lima beans, Rec. IX, 1061.

Phytopti species, notes, Rec. V, 61.

Phytoptus—

calcladophora, notes, Rec. X, 1054.

dubius, notes, Rec. VI, 436.

laricis, n. sp., notes, Rec. VIII, 912.

macrotuberculatus, notes, Rec. VII, 595.

oleivorus, notes, Rec. IX, 571; X, 769.

phæcoptes, notes, Rec. VII, 517.

pini, notes, Rec. X, 374.

pyri. (See PEAR LEAF BLISTER MITE.)

ribis—

notes, Rec. V, 740; VI, 65; IX, 74; XI, 272; XII, 1060.

remedies, Rec. XII, 772.

rubi, notes, Rec. VI, 65.

rubraamanti, notes, Rec. VII, 595.

Phytoptus—Continued.

sp., treatment, Rec. V, 883.

taxi, notes, Rec. XI, 766.

vitis, notes, Rec. X, 763; XII, 167.

Phytoptus—

histological modification, Rec. XI, 911.

notes, Rec. V, 792.

on the hackberry, notes, Bul. 2, II, 34.

Phytosterin, occurrence in the animal body, Rec. XI, 672.

Picea—

alba—

notes, Rec. II, 143; III, 788; IV, 655; V, 54.

propagation from seed, Rec. III, 229.

canadensis, notes, Rec. VII, 94; XII, 153.

columbiana, notes, Rec. IX, 52.

englemanni, notes, Rec. IV, 655; VIII, 314.

excelsa—

abnormal bark formation, Rec. VI, 196.

forms, Rec. X, 856.

growing for paper pulp, Rec. XII, 456.

notes, Rec. II, 143; IV, 655; V, 54; VII, 134, 961; IX, 652; XI, 121; XII, 153.

seed constituents, Rec. X, 825.

seeds, constituents and cleavage products of proteids, Rec. XI, 111.

mariana, germination experiments, Rec. V, 61.

nigra, notes, Rec. IV, 655; V, 54; VI, 143.

nobilis, witches' broom, Rec. XII, 658.

omorica, notes, Rec. VIII, 794.

orientalis, notes, Rec. VI, 143.

polita, notes, Rec. IX, 62.

pungens, notes, Rec. II, 143; III, 788; IV, 655; XI, 855; XII, 153.

sp., notes, Rec. VII, 134.

Picea—

red coloration of stomata, Rec. X, 612.

resin ducts and strengthening cells, Rec. XII, 827.

Picein, a glucosid in the leaves of *Pinus picea*, Rec. VI, 273.

Picker waste, analyses, Rec. V, 290.

Pickereel weed, analyses, Rec. V, 64, 65.

Pickle worm, notes, Rec. I, 27; VIII, 1002; XI, 363, 864; XII, 1058.

Pie melon. (See STOCK MELON.)

Pied grasshopper, notes, Rec. X, 93.

Pieris—

brassicæ—

inoculation experiments, Rec. XI, 1064.

natural enemies, Rec. XII, 661.

notes, Rec. VIII, 908; X, 65, 1076; XII, 1059.

remedies, Rec. XI, 1063; XII, 661.

mariana, notes, Rec. X, 516.

monuste, notes, Rec. III, 318; IV, 254.

napi, notes, Rec. XII, 1059.

oleracea—

notes, Rec. I, 12.

remedies, Rec. IV, 58.

protodice. (See CABBAGE BUTTERFLY.)

rapæ. (See CABBAGE BUTTERFLY, IMPORTED.)

sp., notes, Rec. III, 175.

spp., means of distribution, Rec. XII, 663.

Piesma cinerea, notes, Rec. II, 734; III, 784; VI, 150.

- Pigeon grass—
 for pigs, Rec. VIII, 326.
 yellow, analyses, Rec. V, 64.
- Pigeon hawk, notes, Rec. VI, 695.
- Pigeon—
 manure—
 analyses, Rec. II, 101; III, 9; X, 1031.
 as a fertilizer, Rec. VII, 293, 489.
 pox, pathological anatomy, Rec. XII, 994.
 tremex, Rec. IX, 858.
 weed, notes, Rec. IV, 591; V, 398.
- Pigeons—
 fatal disease in, Rec. VII, 525.
 nutrition experiments, Rec. V, 532.
 susceptibility to hemorrhagic septicemia of
 poultry, Rec. XII, 990.
 toxicology of strychnin, Rec. XII, 392.
- Piggottia fraxini*, notes, Rec. IV, 50.
- Pigmentation as affected by light and heat, Rec.
 IX, 329.
- Pigments produced by fungi and bacteria, Rec.
 IX, 422.
- Pigmy cocoanuts, Rec. V, 437.
- Pigmy panic grass, Rec. IX, 922.
- Pignut, notes, Rec. III, 521.
- Pigs— (See also PORK and SWINE.)
 acorns for, Rec. X, 1086.
 alfalfa for, Rec. III, 624; VIII, 157; X, 177;
 XII, 375, 377, 1070.
 alfalfa hay for, Rec. XI, 182, 397, 498; XII,
 174, 898.
 alfalfa pasture with and without grain for,
 Rec. XI, 1070.
 analyses of fat, Rec. XII, 581.
 analysis of flesh, Rec. IV, 59; XII, 674.
 apple pomace silage for, Rec. III, 150.
 apples and pumpkins for, Rec. XI, 967.
 artichokes for, Rec. X, 675; X, 296; XII, 176,
 876.
 artificial milk for, Rec. XI, 883.
 ashes for, Rec. II, 301, 427, 438.
 at farrowing time, Rec. XI, 397.
 Louisiana Station, notes, Rec. XII, 878.
- barley—
 and bran for, Rec. VI, 569.
 corn *v.* molasses feed for, Rec. XI, 69.
 skim milk for, Rec. V, 809.
 wheat *v.* wheat for, Rec. VII, 609.
 bald *v.* common for, Rec. IX, 971.
 Danish *v.* Russian for, Rec. VII, 245.
 for, Rec. II, 427, 438, 439, 578; III, 130, 222;
 V, 809; VI, 77, 465, 466; VII, 523; VIII,
 519; X, 74, 177; XI, 177, 879; XII, 588.
 ground and cocoanut or linseed oil for,
 Rec. XI, 674.
 ground for, Rec. XII, 677.
 ground *v.* corn meal for, Rec. II, 439.
v. corn for, Rec. IV, 421, 423; VII, 244, 523;
 IX, 971; XI, 177.
 mangel-wurzels and carrots for, Rec.
 VII, 243.
 mixtures of barley, wheat, and peas
 for, Rec. X, 177.
 oil cakes for, Rec. VII, 243.
 roots for, Rec. VII, 243.
 wheat bran for, Rec. V, 429.
 wheat for, Rec. VI, 663; XI, 69.
- Pigs—Continued.
 barley meal—
 and linseed meal for, Rec. IV, 423.
 skim milk for, Rec. II, 577.
 for, Rec. IV, 421, 423; V, 200; VIII, 921.
v. barley meal and linseed meal for, Rec.
 IV, 423.
 corn meal for, Rec. II, 439; XI, 72.
 with wheat shorts for, Rec. XI, 879.
 barrows *v.* sows for fattening, Rec. VII, 247.
- beans—
 and peas for, Rec. X, 73.
 potatoes for, Rec. X, 73.
- beef scrap for, Rec. III, 181.
- beet pulp for, Rec. IV, 784.
- beet-sugar molasses for, Rec. VII, 701.
- beets for, Rec. VI, 70.
- blood molasses *v.* grain for, Rec. XI, 69.
- bone meal—
 and ashes for hogs fed corn, Rec. II, 301,
 438.
 for, Rec. II, 301, 427, 438.
- bones—
 effect of feed on, Rec. II, 427.
 strength of, Rec. II, 301.
- bran—
 fermented and unfermented for, Rec. XI,
 967.
 oats and barley for, Rec. XII, 588.
- breeding, Rec. II, 498.
- breeding—
 and care, Rec. XII, 698.
 management, Rec. IX, 874.
 in-and-in, Rec. IV, 866.
 experiments, Rec. XI, 1077.
- breeds—
 comparison of meat, Rec. X, 878.
 notes, Rec. II, 498, 642.
 tests, Rec. II, 74, 107; III, 131, 157, 392, 478;
 IV, 68, 866; VI, 70, 465, 572, 750, 929, 1016;
 VIII, 79, 329; IX, 86, 87, 478, 874; X, 278,
 279; XI, 177, 668; XII, 673, 779.
- buckwheat—
 for, Rec. VIII, 921; XII, 588.
v. wheat for, Rec. VIII, 921.
- buttermilk—
 for, Bul. 2, I, 79; Rec. III, 131, 155; IV,
 742; VIII, 78.
v. skim milk for, Rec. IX, 978.
- carcasses, analyses, Rec. X, 878.
- carrots for, Rec. VII, 243.
- cassava for, Rec. XI, 377; XII, 779.
- castration, effect on growth, Rec. VIII, 519.
- charcoal for, Rec. IV, 423.
- Chester Whites, notes, Rec. II, 642.
- chronic cough, Rec. XI, 797.
- chufas for, Rec. X, 1085; XI, 377.
- churn washings for, Rec. IV, 742.
- clover—
 for, Rec. II, 676, 736; III, 130; IV, 262; XI,
 570.
 red, for, Rec. VIII, 817.
 with and without salt for, Rec. II, 736.
- coarse foods for, Rec. II, 735; III, 624.
- coarse *v.* concentrated rations for, Rec. VI,
 929.
- condition, Rec. III, 253, 813.

Pigs—Continued.

- contagious diseases, Rec. V, 823, 927.
 cooked *v.* uncooked feed for, Rec. III, 747;
 IV, 441, 512; VII, 325; VIII, 325; XII, 677.
 corn—
 and barley *v.* molasses feed for, Rec. XI,
 69.
 bran for, Rec. VI, 569.
 cowpeas for, Rec. IX, 273.
 shuck whole *v.* corncob and shuck
 coarsely ground, Bul. 2, I, 187.
 skim milk for, Rec. IX, 870.
 wheat bran for, Rec. IX, 273.
 wheat for, Rec. VI, 466; VII, 122; X,
 176.
 wheat for, relative value, Rec. VI,
 466.
 wheat for, summary of experiments,
 Rec. VIII, 716.
 wheat *v.* Kafir corn for, Rec. VII, 800.
 cowpeas, and wheat bran for, Rec. IX,
 272.
 ear *v.* ground corn and cob for, Rec. XI,
 968.
 fodder for, Rec. III, 130.
 for, Rec. II, 647; III, 222; IV, 742; VI, 466;
 VII, 523; VIII, 921; IX, 273; X, 176; XI,
 71, 377, 669.
 for growing hogs, Rec. VIII, 79.
 ground *v.* whole corn for, Rec. X, 776.
 on the cob *v.* corn meal for, Rec. VI, 1010.
 shelled for, Rec. I, 63; III, 149.
 soaked for, Rec. I, 7; IV, 742; XI, 774, 1070.
 soaked *v.* dry for, Rec. III, 141, 149; IV,
 742; VI, 571.
 steamed *v.* cracked for, Rec. III, 747.
v. corn-and-cob meal for, Rec. XI, 968.
 corn and grass for, Rec. III, 149.
 palm-nut meal for, Rec. XI, 70.
 wheat for, Rec. VI, 466; VII, 52, 122,
 241, 248, 524; VIII, 919.
 whole *v.* corn meal for, Bul. 2, I, 209; Bul.
 2, II, 44, 56; Rec. II, 196; VI, 1010; VIII,
 1012; IX, 580, 870; X, 776; XI, 571, 774,
 968; XII, 75.
 with bone meal and ashes, Rec. II, 301.
 corn-and-cob meal for, Bul. 2, I, 78, 82; Bul.
 2, II, 44; Rec. I, 63; III, 157, 222; VII, 607.
 corn meal—
 and bran for, Rec. XI, 967.
 buttermilk for, Rec. III, 155.
 ground barley for, Rec. XI, 879.
 middlings for, Rec. VIII, 921.
 potatoes *v.* shorts and bran for, Rec.
 I, 216.
 shorts for, Rec. X, 674; XI, 667, 879.
 skim milk for, Bul. 2, I, 209; Rec.
 III, 155, 156; V, 75, 317; VI, 929;
 VIII, 78, 919; IX, 870.
 skim milk for, best proportions, Rec.
 VIII, 717.
 skim milk *v.* corn meal middlings for,
 Rec. II, 413.
 water for, Rec. II, 647.
 wheat for, Rec. VIII, 715, 716.
 barley meal, and middlings for, Rec. VIII,
 921.

Pigs—Continued.

- corn meal—continued.
 bran, and beef scraps for, Rec. III, 181.
 buttermilk for, Rec. III, 131, 155; IV, 742;
 VIII, 1012; IX, 978.
 cooked *v.* corn meal raw for, Rec. VII,
 325; XII, 677.
 for, Bul. 2, I, 78, 82; Bul. 2, II, 44; Rec.
 I, 63; II, 413, 426, 439, 647; III, 49, 156,
 181, 478; IV, 68, 421, 423; VI, 161; VIII,
 921; XI, 879, 967; XII, 982.
 light *v.* heavy feeding, Rec. IV, 484; V,
 318.
 linseed meal, and middlings for, Rec.
 VIII, 921.
v. barley for, VII, 244, 523; IX, 971; XI, 72.
 barley meal and linseed meal for, Rec.
 IV, 423.
 barley meal for, Rec. II, 439; IV, 421,
 423; XI, 72.
 Cerealine feed for, Rec. XI, 568.
 corn-and-cob meal for, Bul. 2, II, 44.
 hominy meal for, Rec. XI, 568.
 oat feed for, Rec. IX, 375.
 rice meal for, Rec. III, 478, 479; IX, 378.
 shelled corn for, Rec. IX, 870.
 whole corn for, Bul. 2, II, 56; Rec.
 VIII, 1012; XI, 774, 968.
 wet *v.* dry for, Rec. VIII, 1012.
 wheat bran, and gluten meal for, Rec.
 III, 156, 157.
 wheat meal, and skim milk for, Rec. VIII,
 919.
 with bone meal and hard-wood ashes,
 Rec. II, 427, 438.
 corn shives, ground, for, Rec. XII, 176.
 corn silage—
 and roots for, Rec. III, 129.
 for, Rec. II, 282.
 cost of—
 fattening, Rec. XI, 878.
 feeding, Rec. X, 778.
 feeding before and after weaning, Rec.
 II, 438; X, 778; XII, 673.
 producing pork, Bul. 2, I, 79; Rec. II,
 197, 497, 498; III, 157, 478; IV, 68; XI,
 569.
 cotton-seed meal—
 and cotton seed for, Rec. VII, 981.
 linseed meal for, Rec. VIII, 325.
 for, Rec. I, 63; IV, 357; VI, 922; VII, 800;
 VIII, 325; XII, 375.
 v. corn-and-cob meal for, Rec. VII, 607.
 cotton seed, raw and cooked, for, Rec. IV, 353;
 VII, 981; XI, 1072.
 cowpea pasture for, Rec. X, 578; XII, 176.
 cowpeas—
 and corn *v.* corn for, Rec. X, 578.
 for, Rec. IX, 273.
 crops for, Rec. IX, 378.
 crossbred, growth, Rec. X, 279.
 crossbreeding, Rec. VII, 798.
 digestion, activity of, Rec. V, 732.
 digestion experiments, Rec. II, 414; IV, 733;
 VI, 6; VII, 975; VIII, 615.
 digestive power of different breeds, Rec. XII,
 282.

Pigs—Continued.

- diseases, manual, *Rec. XI*, 93.
 domestic and wild boar, crosses, *Rec. V*, 733.
 dried blood for, *Rec. II*, 426; *IV*, 485.
 effect of—
 corn cockle, *Rec. IV*, 90.
 fat upon carcass, *Rec. II*, 438.
 food on blood, internal organs, bones, etc.,
 Bul. 2, I, 210; *Rec. I*, 216; *II*, 426.
 food on internal organs, *Rec. II*, 108; *X*,
 579.
 food on quality of pork, *Rec. XI*, 70; *XII*,
 588.
 food upon the formation of the skull and
 dentition, *Rec. I*, 103.
 rain water, well water, and bone meal on
 carcass and bones, *Rec. II*, 427.
 epizootic diseases, *Rec. I*, 107; *XII*, 692.
 erysipelas, treatment, *Rec. XI*, 290.
 fat—
 analyses, *Rec. XII*, 581.
 fuel value, *Rec. III*, 386.
 fattening, *Rec. X*, 885.
 fecundity, *Rec. X*, 296, 999.
 fecundity as affected by breed, *Rec. X*, 280.
 feeding, *Rec. IX*, 276.
 feeding—
 cooked milk from cows with foot-and-
 mouth disease, *Rec. IV*, 986.
 experiments, *Rec. IV*, 68, 108, 784; *V*, 733;
 XI, 483.
 feeding experiments, summary of—
 at Canada Experimental Farms, *Rec. XI*,
 968.
 Massachusetts Station, *Rec. II*, 577;
 III, 156.
 Vermont Station, *Rec. IV*, 485.
 Wisconsin Station, *Bul. 2, I*, 210; *Rec.*
 II, 428; *VII*, 615.
 feeding—
 for fat and for lean, *Rec. I*, 134; *II*, 437.
 profit, *Rec. II*, 497.
 in Denmark, *Rec. VII*, 242.
 Kansas, *Rec. X*, 584.
 Montana, *Rec. X*, 177.
 Oregon, *Rec. IV*, 483.
 Utah, *Rec. III*, 624.
 principles of, *Rec. VI*, 931.
 suggestions regarding, *Rec. II*, 428, 578.
 twice *v.* three times daily, *Rec. V*, 77.
 with and without salt, *Rec. II*, 284.
 with grain and meal, *Rec. V*, 632.
 without milk, *Rec. II*, 282.
 without salt, *Rec. II*, 284.
 following steers, gains, *Rec. III*, 150; *VI*, 322,
 571; *VII*, 600, 603; *IX*, 975; *XI*, 1070.
 food—
 consumed per day, *Rec. II*, 75.
 effect on quality of pork, *Rec. X*, 1086;
 XII, 582, 588.
 preparation, *Rec. V*, 349; *VI*, 843.
 required during growth, *Rec. VIII*, 324.
 required from birth until seven months
 old, *Rec. X*, 279.
 required per pound of gain, *Rec. II*, 108,
 436; *III*, 131.
 requirements, *Rec. XII*, 77.

Pigs—Continued.

- foot-and-mouth disease, *Rec. XI*, 695.
 for bacon, *Rec. XII*, 1078.
 forage crops for, *Rec. IX*, 799; *X*, 698.
 forceps for holding during inoculation, *Rec.*
XII, 894.
 from mature *v.* immature parents, *Rec. II*,
 338.
 gain—
 before and after weaning, *Rec. VIII*, 1011;
 IX, 87.
 in weight per day, *Rec. II*, 75.
 of sow and litter, *Rec. III*, 222.
 gluten meal for, *Bul. 2, I*, 78, 82; *Rec. II*, 577,
 647; *III*, 156, 478; *IV*, 68; *V*, 75.
 grade, feeding experiments, *Rec. XII*, 374.
 grain—
 ground *v.* whole grain for, *Rec. II*, 427;
 III, 130; *IV*, 512; *V*, 632; *IX*, 971; *X*, 776.
 v. grain and silage for, *Rec. IV*, 738.
 mangel-wurzels for, *Rec. V*, 429.
 silage for, *Rec. IV*, 738.
 with and without grass for, *Rec. VII*, 983.
 grapes for, *Rec. V*, 353.
 grass and exercise in pork production, *Rec.*
VI, 71.
 grass for, *Rec. V*, 76.
 green fodder for, *Rec. II*, 676; *III*, 130.
 green rye for, *Rec. VIII*, 817.
 hominy meal *v.* corn meal for, *Rec. XI*, 568.
 Hungarian grass for, *Rec. III*, 392.
 in-and-in breeding, *Rec. IV*, 866.
 in dairy husbandry, *Rec. VII*, 523.
 stubble fields, *Rec. X*, 397.
 indoor *v.* outdoor feeding, *Rec. V*, 71, 196.
 infectious pneumoenteritis. (*See* HOG CHOL-
 ERA.)
 influence of age of parents on, *Rec. II*, 338.
 intestines, length of, *Rec. II*, 428.
 Jerusalem artichokes for, *Rec. XI*, 296.
 Kafir corn—
 for, *Rec. XI*, 498, 1070; *XII*, 375, 898.
 v. corn and wheat for, *Rec. VII*, 800.
 corn for, *Rec. IX*, 975.
 Kafir-corn meal for, *Rec. VIII*, 1010, 1011;
XI, 1070.
 lameness, *Rec. VII*, 805.
 lice, road dust for, *Rec. V*, 901.
 light *v.* heavy feeding, *Rec. VII*, 246.
 linseed meal for, *Rec. III*, 222; *IV*, 423; *VIII*,
 325.
 lung diseases, *Rec. III*, 152.
 lupines for, *Rec. X*, 184.
 management, *Rec. XII*, 478.
 mange, *Rec. III*, 152.
 mangel-wurzels for, *Rec. II*, 737; *IV*, 262; *VII*,
 243; *XI*, 667.
 manure—
 analyses, *Rec. V*, 143, *XI*, 314.
 production, *Rec. V*, 388.
 undigested grain in, *Rec. IV*, 483; *X*, 883.
 value, *Rec. II*, 76; *III*, 91; *IV*, 68.
 measles, *Rec. III*, 152.
 measurements, *Rec. VI*, 931; *VII*, 248.
 measurements of different breeds, *Rec. VI*,
 931.
 meat meal, Ohlendorff's, for, *Rec. XII*, 478.

Pigs—Continued.

- metabolism experiments, Rec. XI, 672.
- milk—
 - artificial, for, Rec. XI, 883.
 - effect of composition on growth, Rec. XI, 576.
 - sour, for, Rec. VIII, 1009.
 - sweet *v.* sour for, Rec. VII, 707.
- millet and corn for, Rec. II, 676.
- mixed grains for, Rec. V, 993; VI, 465; VII, 608; X, 882, 986; XI, 669.
- molasses—
 - and barley for, Rec. XII, 588, 677.
 - sugar *v.* starch for, Rec. IX, 581.
 - feed for, Rec. VII, 701; X, 482; XI, 69.
 - for, Rec. VIII, 519, 822; IX, 273; X, 772, 781; XI, 69.
 - poisoning, Rec. X, 794.
- nitrogen excreted by, Rec. V, 143.
- nitrogenous rations for, Rec. I, 63; II, 647; V, 388; X, 380; XII, 584.
- nitrogenous *v.* carbonaceous rations for, Rec. I, 216; II, 426; III, 181; IV, 573; VI, 928; VII, 242.
- nonmatile pathogenic bacillus in, Rec. V, 512.
- number and—
 - condition, Rec. VI, 486.
 - value, Rec. V, 799.
- nutritive ratio of food, Rec. II, 647; III, 155, 156; XII, 584.
- oat—
 - and pea forage and red clover for, Rec. II, 736.
 - feed *v.* corn meal for, Rec. IX, 375.
- oats—
 - and peas for, Rec. IX, 871.
 - crushed, for, Rec. XII, 588.
 - for, Rec. II, 676; III, 130; IV, 483; V, 993; XI, 177.
 - v.* wheat for, Rec. IV, 483; V, 993.
 - whole *v.* ground for, Rec. II, 427; IV, 483.
- oil cakes for, Rec. VII, 243.
- palm-nut meal *v.* corn for, Rec. XI, 70.
- parasites, Rec. III, 501.
- pasturage for, Rec. V, 76.
- pea meal—
 - and corn meal for, Rec. II, 647.
 - crushed oats for, Rec. XII, 588.
 - for, Rec. II, 426, 647; III, 130.
 - oatmeal, and corn meal for, Rec. VI, 750.
- pea vine silage for, Rec. IV, 441.
- peanut pasture for, Rec. X, 577, 1085.
- peanuts for, Rec. VIII, 817; X, 577; XI, 377; XII, 475.
- peas—
 - and bran for, Rec. VI, 569.
 - for, Rec. III, 624; VI, 161; XII, 475.
- pens—
 - at Canada Station, Rec. III, 356.
 - Indiana Station, Rec. XII, 96.
 - description of, Rec. II, 589.
 - plans for, Rec. VI, 848.
- phosphoric acid excreted by, Rec. V, 143.
- pigeon grass for, Rec. VIII, 326.
- pneumonia, Rec. IX, 390.
- poisoning—
 - by molasses, Rec. X, 794.
 - from corn-cockle seed, Rec. V, 733, 813.

Pigs—Continued.

- potatoes—
 - boiled, for, Rec. V, 200.
 - cooked, for, Rec. II, 439.
 - for, Rec. I, 216; II, 439, 647; V, 200; VI, 77; VII, 975; VIII, 80, 918; IX, 871; X, 73, 83.
 - raw *v.* boiled, Bul. 2, II, 44.
- pregnancy as affecting pork, Rec. IX, 176.
- preparation of food, Rec. V, 349; VI, 843.
- prickly comfrey for, Rec. II, 284, 735; IV, 262.
- prickly pear with meat refuse and molasses for, Rec. VIII, 822.
- production—
 - of lean meat in, Rec. I, 134.
 - soft pork, Rec. VII, 609; VIII, 921; XI, 670.
- profit in, Rec. III, 132.
- protein, best proportions, Rec. XII, 584.
- protein compound for, Rec. X, 380.
- prunes for, Rec. XI, 1046.
- pumpkins—
 - cooked and raw, for, Rec. XI, 967.
 - for, Rec. X, 674.
- pure-bred, feeding experiments, Rec. XI, 668; XII, 374.
- pure bred *v.* grade and crossbred, Rec. VII, 608.
- purslane for, Rec. XII, 876.
- quarantine experiments with, Rec. VIII, 253.
- rain water for, Rec. II, 427.
- raising, Rec. V, 1033.
- raising—
 - in Denmark, Rec. VI, 242; VII, 523; IX, 88.
 - the Pacific Northwest, Rec. XII, 380.
 - the South, Rec. XI, 381, 497.
 - Tunis, Rec. XII, 178.
- rape—
 - for, Rec. V, 634; IX, 374; X, 781; XI, 669; XII, 588.
 - for fattening, Rec. XI, 669.
 - v.* clover for, Rec. XI, 570; XII, 76.
- rations for, Rec. III, 182; V, 76.
- Red Jersey, notes, Rec. II, 642.
- relative gains compared with calves, Rec. VIII, 1012.
- respiration experiments, Rec. IX, 581.
- rice bran for, Rec. III, 478.
- rice meal—
 - for, Rec. XII, 982.
 - molasses feed, and ground grain for, Rec. X, 482.
 - v.* corn meal for, Rec. III, 478, 479; IX, 374.
- roots—
 - for, Rec. IV, 485; XI, 68.
 - v.* dried food for, Rec. IV, 485.
- rye bran and wheat bran *v.* rye and wheat, Rec. V, 227.
- rye *v.* wheat bran for, Rec. V, 429.
- selection, care, and feeding, Rec. VII, 804.
- ship stuff for, Rec. I, 63.
- shrinkage—
 - before killing, Rec. II, 108.
 - in dressing, Rec. VI, 929; IX, 871.
- silage—
 - and grain for, Rec. IV, 738.
 - roots for, Rec. III, 129, 133; V, 632.
 - for, Rec. II, 282; IV, 738; IX, 784; XI, 599.
 - v.* turnips for, Rec. III, 129, 133.

Pigs—Continued.

skim milk—

and corn for, Rec. II, 647; IX, 870.

corn meal for, Bul. 2, I, 209; Rec. III, 155, 156; V, 75, 317; VI, 929; VIII, 78, 717, 919; IX, 870.

grain for, Rec. IV, 512.

potatoes for, Rec. V, 200.

brewers' grains, potatoes, and whey for, Rec. VIII, 80.

cooked corn meal, and whey for, Rec. VIII, 80.

corn meal, and gluten feed for, Rec. V, 75.

corn meal, and potatoes for, Rec. VIII, 80.

corn meal, and wheat bran for, Rec. II, 74.

for, Bul. 2, I, 78, 82; Bul. 2, II, 44; Rec. II, 74, 413, 427, 439, 578, 646, 647; III, 131, 155, 156, 392, 478; IV, 68, 512; V, 75, 200, 809; VI, 77, 930; VII, 523, 608; VIII, 78, 423, 716, 919, 920, 922; IX, 375, 870, 871, 971; X, 73, 986; XI, 71, 490, 568, 570, 967; XII, 375, 588, 982.

for mature v. growing, Rec. II, 427.

pea meal, and corn meal for, Rec. VI, 750.

sweet v. sour for, Rec. IV, 484; V, 317, 318; XII, 677.

v. buttermilk for, Rec. VIII, 1012; IX, 978.

gluten and linseed meal for balancing rations, Rec. XII, 175.

grain rations for, Rec. VI, 750.

green clover for, Rec. XII, 175.

sour milk for grown, Rec. VIII, 1009.

whey for, Rec. X, 74; XI, 71.

slaughter experiments, Rec. VII, 337; VIII, 519; IX, 165; XI, 483.

slop for, Rec. XII, 1075.

soap, powdered, as a cause of death among swill-fed, Rec. IX, 1090; X, 694.

sorghum for, Rec. II, 736; IV, 262; VI, 70; VIII, 817.

sows' milk—

analyses, Rec. X, 783; XII, 84.

distribution of galactase, Rec. XI, 580.

soy-bean pasture for, Rec. X, 1085.

soy beans for, Rec. X, 1086; XII, 143, 347, 898.

spaying, effect on growth, Rec. VIII, 519.

statistics, Rec. V, 799; VI, 486; X, 885.

steamed v. cracked corn for fattening, Rec. III, 747.

steamed v. raw food for, Rec. IV, 441, 512.

stock, for market, Rec. VIII, 626.

stomach parasites, Rec. XI, 697.

strength of bones, Rec. II, 301.

Strongylus paradoxus in, Rec. X, 95.

stubble field pasture for, Rec. X, 177, 397.

succession of crops for, Rec. IX, 378.

succulent foods for, Rec. XII, 178, 677.

sugar beets—

and pea silage for, Rec. IV, 441.

for, Rec. IV, 441; XII, 876.

sugar for, Rec. XII, 583.

summary of experiments on management, Rec. XII, 478.

summer treatment, Rec. III, 608.

sunflower heads and grain for, Rec. IX, 871.

sweet potatoes—

for, Rec. VIII, 817; XII, 176, 475, 779.

v. corn meal for, Rec. X, 579.

Pigs—Continued.

sweet v. sour milk for, Rec. VII, 707.

swill-fed, as affected by powdered soap, Rec. IX, 1090; X, 694.

trichina, wandering, in, Rec. X, 95.

trichinosis, Rec. III, 152.

Tropon residue for, Rec. XI, 483.

tubercles in, when fed raw milk and whey, Rec. VIII, 428.

tuberculosis, Rec. IX, 893; XI, 995; XII, 992.

tuberculosis—

propagated by feeding uncooked refuse, Rec. V, 439.

susceptibility to, Rec. XII, 1085.

value of English blood in, Rec. VIII, 519.

vetch and oats for, Rec. II, 676.

weight at birth, Rec. XI, 1070.

weights—

at farrowing time, Rec. X, 777.

most profitable, Rec. II, 76.

of different organs, Rec. II, 108.

wet v. dry food for, Bul. 2, I, 209; Rec. II, 532; IV, 423; V, 994, 995; VI, 922, 1017; VII, 707; VIII, 1010, 1012, 1013; X, 176.

wheat—

and bran for, Rec. VI, 569.

boiled for, Rec. VII, 609.

cracked v. grain mixture for, Rec. VII, 62.

for, Rec. III, 624; V, 993, 1065; VI, 161, 466, 468, 663; VII, 62, 122, 241, 248, 524, 609, 798, 800, 981; VIII, 326, 332, 715, 917; IX, 871; X, 176; XI, 69.

frosted, for, Rec. VI, 465, 466.

frozen for, Rec. IV, 513; VI, 466.

ground and unground for, Rec. IV, 483.

soaked for, Rec. VII, 609.

v. barley and wheat for, Rec. VII, 609.

barley for, Rec. VI, 663; XI, 69.

buckwheat for, Rec. VIII, 921.

corn for, Rec. VI, 466; VII, 52, 122, 241, 248; VIII, 919.

mixed grains for, Rec. IX, 872.

peas, corn, and barley for, Rec. VI, 569.

wheat bran—

and corn meal for, Rec. IX, 273; XI, 967.

whey for, Rec. IX, 870.

fermented v. unfermented for, Rec. XI, 967.

for, Bul. 2, I, 78; Rec. I, 63; II, 577, 646, 647; III, 131, 156, 181, 222, 478; IV, 68; V, 388, 429.

v. middlings for, Rec. II, 646.

rye or barley for, Rec. V, 429.

wheat for, Rec. V, 227.

wheat meal—

and skim milk for, Rec. VIII, 919.

v. rye meal for, Rec. VIII, 423.

wheat middlings—

for, Rec. II, 413, 646; III, 49, 130, 392, 478; XII, 779.

v. wheat bran for, Rec. II, 646.

wheat, sheaf, for, Rec. VIII, 917.

wheat shorts for, Rec. XI, 879.

whey—

and bran v. skim milk and corn meal for, Rec. IX, 870.

feeding value, Rec. XI, 669.

for, Rec. III, 48; X, 73, 176; XI, 71.

Pigs—Continued.

whey—continued.

- substitution for skim milk, *Rec. X*, 74.
- sweet for, *Rec. III*, 48.
- sweet v. sour for, *Rec. IX*, 477; *X*, 277.
- v. turnips for, *Rec. VI*, 243; *VII*, 243.
- winter feeding, *Rec. IV*, 187.
- young, cattle plague, *Rec. X*, 496.

Pigweed—

- analyses, *Rec. III*, 357; *XII*, 586.
- common, notes, *Rec. VIII*, 795.
- eradication, *Rec. VIII*, 234.
- fla-beetle, notes, *Rec. III*, 860.
- food value of seed, *Rec. V*, 733, 811.
- notes, *Rec. III*, 308, 598; *IV*, 47, 699; *V*, 529, 811, 913; *VI*, 732; *VIII*, 234; *IX*, 142; *X*, 343; *XI*, 354.
- root system, *Rec. IV*, 46.
- Russian, notes, *Rec. VIII*, 703.
- seed—
 - analyses, *Rec. XII*, 586, 823.
 - food value, *Rec. V*, 733, 811.
 - in flour, *Rec. V*, 823.
- spreading, root system, *Rec. IV*, 47.
- white, notes, *Rec. V*, 497.
- winged, notes, *Rec. IV*, 699; *X*, 121.

Pilobolus crystallinus—

- affecting roses, *Rec. X*, 59.
- as a cause of rose black spot, *Rec. IX*, 324.

Pilocarpin and phloridzin effect on formation of milk sugar, *Rec. IV*, 781.*Pilosoma obliqua*, notes, *Rec. IX*, 260.*Pimelea* spp., notes, *Rec. XII*, 961.Pimento, insects affecting, *Rec. VII*, 231, 431.*Pimpla*—

- alternans*, notes, *Rec. XII*, 866.
- annulipes*, notes, *Rec. II*, 115.
- conquisitor*—
 - notes, *Rec. II*, 115; *XII*, 860.
 - parasitic on tent caterpillars, *Rec. X*, 1061.
 - relation to *Otisiocampa americana*, *Rec. XI*, 1100.
- pedalis*—
 - as a parasite of the gypsy moth, *Rec. III*, 870.
 - notes, *Rec. II*, 115.
 - sp., as an enemy of the oak looper, *Rec. III*, 350.

Pimpla, revision of species, *Rec. IX*, 361.Pin borer on sugar cane, *Rec. IV*, 373.Pine— (*See also* PINUS.)

- and fir seeds, harvesting, *Rec. VII*, 508.
- larch wood, studies, *Rec. VI*, 56.
- aphis, notes, *Rec. X*, 165; *XI*, 562.
- Austrian—
 - for reforestation in France, *Rec. XII*, 758.
 - notes, *Rec. II*, 143; *IV*, 655; *V*, 54; *VII*, 231.
- bark, analyses, *Rec. II*, 550; *V*, 256.
- bark beetle—
 - injury to forests by, *Rec. IV*, 699.
 - notes, *Rec. V*, 311, 884; *IX*, 857, 964; *XI*, 475.
- barrens—
 - grass, analyses, *Rec. V*, 165.
 - of Michigan, experiments on, *Bul. 2*, I, 101; *Rec. I*, 228.
- beach, as affected by salt content of air, *Rec. IX*, 452.

Pine—Continued.

- beetle, notes, *Rec. VII*, 413, 700; *VIII*, 909.
- bibliography of insects affecting, *Rec. XI*, 475.
- black, ash analyses, *Rec. I*, 26.
- borer, notes, *Rec. IX*, 962.
- bull—
 - adaptability to the West, *Rec. VI*, 903.
 - germination experiments, *Rec. V*, 61.
 - notes, *Rec. III*, 521; *IV*, 655; *V*, 54; *VI*, 143, 903.
- burrs, analyses, *Rec. II*, 550.
- butterfly, western, *Rec. IX*, 319.
- common, influence of mycorrhiza on, *Rec. V*, 1031.
- cone—
 - ashes, analyses, *Rec. V*, 290.
 - fungus, notes, *Rec. XII*, 573.
- Corsican, notes, *Rec. VII*, 134; *VIII*, 604.
- Cuban, notes, *Rec. VIII*, 135, 603.
- distribution in Cevennes, *Rec. X*, 53.
- dwarf, notes, *Rec. IV*, 655.
- forests—
 - in Germany, *Rec. V*, 256; *XII*, 652.
 - Saxony, renovation, *Rec. VII*, 961.
 - injury by *Lymantria monacha*, *Rec. IV*, 865.
 - management, *Rec. VII*, 776.
 - of Arizona, *Rec. IX*, 52.
 - Central Europe, culture, *Rec. VI*, 301.
 - protection, *Rec. IX*, 757.
 - renovation, *Rec. VIII*, 605.
 - 110-year-old, studies, *Rec. VIII*, 136.
- gall gnat, notes, *Rec. XII*, 775.
- geometer moth—
 - notes, *Rec. X*, 570.
 - remedies, *Rec. IX*, 366.
- growing in shade, renovation, *Rec. VII*, 961.
- growth—
 - as affected by treatment of soil, *Rec. V*, 128, 653.
 - in calcareous and siliceous soils, *Rec. VII*, 961.
 - studies, *Rec. VII*, 775.
- heavy wooded, notes, *Rec. IV*, 655; *V*, 54.
- hexenbesens of, *Rec. VI*, 832.
- histology, *Rec. X*, 644.
- in Main-Rhine Valley, culture, *Rec. IX*, 844.
- mixed forests, *Rec. XII*, 653.
- inhabiting species of Peridermium, *Rec. VIII*, 239.
- injury by *Cenangium abietis*, *Rec. VII*, 508.
- Japanese, wart disease, *Rec. XI*, 469, 861.
- Jersey, notes, *Rec. V*, 54.
- knots, fuel value, *Rec. VI*, 942.
- lands—
 - cut-over, replanting experiments, *Rec. X*, 1046; *XII*, 1047.
 - cut-over, value for agriculture, *Rec. XI*, 941.
 - of Minnesota, reforesting, *Rec. X*, 966.
- leaf cast—
 - causes, *Rec. XII*, 574.
 - notes, *Rec. XII*, 573.
 - treatment, *Rec. XI*, 1061; *XII*, 360, 574.
- leaf disease in Saxony, *Rec. VI*, 312.
- leaf rust—
 - notes, *Rec. III*, 327.
 - studies, *Rec. X*, 969.

Pine—Continued.

loblolly—

- growth, Rec. VII, 870.
- notes, Rec. VIII, 135, 603; IX, 651

long-leaf—

- ash analyses, Rec. I, 27.
- cultivation, Rec. VI, 730.
- distribution of oleoresins, Rec. V, 455.
- growth, Rec. VII, 773.
- in France, Rec. VIII, 794.
- nomenclature, Rec. V, 96.
- notes, Rec. V, 96; VII, 775; VIII, 135, 602.
- timber tests, Rec. V, 96.

louse, woolly, notes, Rec. VI, 730.

mountain, notes, Rec. III, 788.

needles—

- analyses, Bul. 2, I, 182; Rec. I, 26, 27; II, 550; V, 165; XII, 1006.
- growth, Rec. VII, 870.
- rust, notes, Rec. XII, 254.

Norway, notes, Rec. III, 788; IV, 655; V, 54; VI, 993; VII, 960; VIII, 314.

nuts—

- analyses, Rec. XII, 981.
- food value, Rec. XII, 78.

one-leaved, Scotch, notes, Rec. VII, 775.

Peridermium strobi on, Rec. VIII, 996.

pitch, notes, Rec. II, 143; V, 54.

planting for more equitable conditions, Rec. V, 925.

plants accompanying, in Germany, Rec. IV, 870.

pond, notes, Rec. IX, 842.

red. (See PINE, NORWAY.)

Riga—

- as wind-breaks, Rec. XI, 550.
- notes, Rec. XII, 559.

root knot, Rec. IX, 149.

rusts, Rec. VII, 787; VIII, 142.

sawdust as a litter, Rec. V, 144.

sawfly, notes, Rec. IX, 664; XI, 562.

scale—

- insects, notes, Rec. VI, 312.
- white, Rec. VII, 790; IX, 663; X, 766; XI, 958.

Scotch—

- ash analyses of leaves, Rec. XII, 1006.
- fertilization, Rec. V, 1028.
- germination, Rec. XII, 457.
- growth, Rec. VII, 961.
- growth of buds, Rec. IX, 844.
- in the West, Rec. VI, 903.
- notes, Rec. I, 315; II, 143, 512, 555, 741, 829; IV, 655, 829; V, 54; VII, 231, 775, 787, 960, 961; XII, 153.
- physiological investigations, Rec. XII, 653.
- plant louse, notes, Rec. II, 253.
- propagation from seed, Rec. III, 229.
- rate of growth, Rec. IV, 45.
- white, notes, Rec. IV, 655.
- witches' broom, Rec. XI, 469; XII, 463.

scrub—

- notes, Rec. V, 54; VII, 960.
- rust, Rec. VIII, 797.

seeds, destruction by *Gastropacha quercus*, Rec. XI, 371.

Pine—Continued.

short-leaf—

- analyses of straw, Bul. 2, I, 182.
- ash analyses, Rec. I, 26.
- new disease, Rec. XI, 1061.
- notes, Rec. VIII, 135, 603.

southern—

- diseases, Rec. X, 863.
- structure of wood, Rec. VIII, 604; XI, 1050.
- studies, Rec. XI, 1050.

spruce, notes, Rec. VIII, 603.

straw, analyses, Rec. II, 550.

table mountain, notes, Rec. II, 143; V, 54.

thimble cone, notes, Rec. VI, 427.

tree fungus, notes, Rec. XII, 573.

tree scale, notes, Rec. VI, 742.

trees—

- at Illinois Station, Rec. V, 303.
- notes, Rec. II, 143, 512, 741; VII, 134.
- young, manurial needs, Rec. VI, 550.

twig galls, Rec. X, 374, 653.

twigs, analyses, Rec. III, 493.

umbrella, notes, Rec. V, 54.

weevil—

- notes, Rec. VI, 730; XII, 650.
- on larch, remedies, Rec. IX, 575.
- small brown, notes, Rec. XI, 168.

Weymouth— (See also WHITE PINE.)

ash analyses of the wood and bark, Rec. V, 256.

notes, Rec. VII, 961; VIII, 702.

value, Rec. VIII, 794.

white—

- analyses, Rec. XI, 314.
- annual growth, Rec. XII, 649.
- bladder rust, Rec. XI, 949.
- butterfly, Rec. IX, 670.
- chermes, remedies, Rec. X, 1065.
- disease, Rec. X, 363; XI, 746.
- distribution, Rec. X, 1045; XI, 746.
- for reforestation in France, Rec. XII, 757.
- germination experiments, Rec. V, 61.
- growth, Rec. VII, 870, 960, 961; IX, 52, 248, 953.
- in North America, Rec. XII, 958.
- the West, Rec. VI, 903.
- insect enemies, Rec. XI, 746.
- leaf rust, notes, Rec. XII, 1056.
- lumber industry, Rec. XI, 746.
- monograph, Rec. XI, 746.
- new fungus disease, Rec. X, 57.
- notes, Rec. I, 315; II, 143; III, 788; IV, 655; V, 54; VII, 775, 961; VIII, 314, 702; IX, 452; XII, 153.
- Peridermium* affecting, Rec. XII, 573.
- physical properties of wood, Rec. XI, 746.
- plant louse, Rec. III, 176.
- plant louse, notes, Rec. II, 253.
- posts, notes, Rec. VI, 252.
- product per acre, Rec. VIII, 314.
- propagation from seed, Rec. III, 229.
- rate of growth, Rec. VIII, 315.
- sawfly, Rec. III, 291; X, 766.
- second growth, Rec. VIII, 794.
- value of, Rec. VIII, 794.
- worm parasites, Rec. IX, 776.

Pine—Continued.

yellow—

- analyses, Rec. XI, 314.
- ash analyses, Rec. I, 26.
- in Nebraska, Rec. VI, 821.
- notes, Rec. III, 521; V, 54.

Pineapple—

- blight, notes, Rec. VIII, 978.
- disease of sugar cane, Rec. V, 1099; VIII, 499.
- fiber, report on, Rec. V, 92, 93.
- industry in the United States, Rec. VIII, 791.
- long leaf, notes, Rec. VIII, 978.
- notes, Rec. V, 94.
- spruce gall, notes, Rec. VI, 567.
- wild, notes, Rec. VII, 954.

Pineapples—

- analyses, Rec. IV, 59.
 - ash analysis, Rec. VIII, 496.
 - culture, Rec. III, 107, 386; VII, 35, 214.
 - culture—
 - and uses, Rec. VIII, 601, 985.
 - experiments, Rec. VIII, 978.
 - in Florida, Rec. VII, 960.
 - Florida and Cuba, Rec. XI, 650.
 - under glass, Rec. XII, 346.
 - fertilizer experiments, Rec. XI, 448, 739; XII, 346.
 - fertilizers for, Rec. XI, 744.
 - forcing, Rec. VI, 729; VIII, 496; XI, 352.
 - frost resistance as affected by fertilizers, Rec. XI, 739.
 - growing in southern Florida, Rec. XII, 521.
 - in cold storage, Rec. V, 909.
 - insects and diseases affecting, Rec. XI, 256, 741, 1065.
 - manuring, Rec. VIII, 496.
 - mold, Rec. IX, 568.
 - packing and shipment, Rec. VI, 424.
 - seedling, Rec. VII, 771.
 - soils for, Rec. XI, 448.
 - varieties, Rec. VIII, 978.
- Pinetum at Wellesley, Rec. XI, 747.
- Pin-hole borer, notes, Rec. VI, 546.
- Pinion, ash-gray, Rec. IX, 858.
- Pink eye, notes, Rec. V, 79.

Pink—

- French, notes, Rec. IV, 47; VI, 822.
- rust, garden, notes, Rec. V, 399.

Pinks—

- blight, Rec. VI, 231.
- culture, Rec. V, 652.
- disease, Rec. VI, 312.
- diseases, treatment, Rec. XI, 752.

Pinus— (See also PINE.)

- austraca*, notes, Rec. II, 143; IV, 655; V, 54; VII, 231.
- balfouriana*, notes, Rec. IX, 52.
- banksiana*, notes, Rec. VI, 903.
- cembra*—
 - notes, Rec. XII, 958.
 - seed constituents, Rec. X, 825, 1077.
- echinata*, notes, Rec. VIII, 135, 603; IX, 452.
- edulis*, notes, Rec. VIII, 230.
- excelsa*, notes, Rec. VI, 143.
- flexilis*, notes, Rec. IX, 52.
- glabra*, notes, Rec. VII, 960; VIII, 603.
- heterophylla*, notes, Rec. VII, 94; VIII, 135, 603.

Pinus—Continued.

- humilis*, notes, Rec. VIII, 314.
- inops*, notes, Rec. V, 54.
- insignis*—
 - germination experiments, Rec. V, 61.
 - notes, Rec. VI, 143.
- laricio*—
 - for reforestation in France, Rec. XII, 758.
 - in Corsica, Rec. IX, 248.
 - notes, Rec. VII, 134; VIII, 604.
 - oogenesis, Rec. XI, 28.
- laricio pallasina* as a forest tree, Rec. VIII, 702.
- maritima*, destruction by fires in France, Rec. XII, 455.
- mitis*—
 - ash analyses, Rec. I, 26.
 - notes, Rec. II, 143.
- montana*, notes, Rec. II, 143; VII, 787, 960.
- monticola*—
 - as affected by *Peridermium pini*, Rec. X, 59.
 - germination experiments, Rec. V, 61.
- mughus*, notes, Rec. IV, 655.
- muricata*, notes, Rec. VII, 961; IX, 452.
- murrayana*, notes, Rec. VIII, 891.
- palustris*. (See PINE, LONG-LEAF.)
- parviflora*, notes, Rec. VI, 143.
- pinaster*—
 - as affected by salt content of air, Rec. IX, 452.
 - notes, Rec. VI, 143.
- pinia*, rate of growth, Rec. XII, 1048.
- ponderosa*. (See PINE, BULL.)
- pumilus*, notes, Rec. III, 788.
- pungens*, notes, Rec. II, 143; V, 54; VIII, 314.
- radiata*, notes, Rec. XII, 775.
- resinosa*. (See PINE, NORWAY.)
- rigida*—
 - foliage and leaf scars, Rec. VI, 487.
 - notes, Rec. II, 143; V, 54; X, 52.
- scipioniformis*, notes, Rec. X, 53.
- scopulorum*, notes, Rec. IX, 52.
- serotina*, notes, Rec. IX, 842.
- spp., notes, Rec. VII, 134.
- strobis*. (See PINE, WHITE.)
- sylvatica*, notes, Rec. IV, 655.
- sylvestris*. (See PINE, SCOTCH.)
- tæda*. (See PINE, LOBLOLLY.)
- virginiana*. (See PINE, SCRUB.)

Pionea—

- rimosalis*, notes, Rec. III, 46; V, 593; VII, 144; XI, 952.
- sp., notes, Rec. V, 685.

Pioneer Clover Meal, analyses, Rec. XII, 70.

Piophila—

- apii*, notes, Rec. VI, 560.
- casei*, notes, Rec. VI, 653; IX, 65; XII, 1059.

Pip of poultry, notes, Rec. XII, 894.

Pipes, lead—

- action of water on, Rec. III, 432.
- for water, Rec. V, 436, 519.

Pipette—

- automatic, Rec. X, 920.
- for Babcock milk test, Rec. III, 144, 152, 765, 778.
- for measuring—
 - fixed amounts of solutions, Rec. VII, 92.
 - successive aliquots, Rec. VIII, 668.

Pipette—Continued.

- for milk sampling, **Rec. XII**, 91.
- plate cultures, description, **Rec. XII**, 391.
- rapid and exact measurement of liquids, **Rec. IX**, 323.
- new, **Rec. X**, 21.
- new—
 - automatic, **Rec. VIII**, 861.
 - form, **Rec. IV**, 388, 516.
 - valve, **Rec. VII**, 273.

Pipettes—

- and burettes for laboratories, **Rec. V**, 251, 386.
- for simplification of calculations, **Rec. V**, 386.

Pirostoma farnetianum, notes, **Rec. IX**, 659; **X**, 562.

Pirus. (See **PYRUS**.)

Pisciculture. (See **FISH**.)

Pissodes—

- notatus*, notes, **Rec. XI**, 168.
- strobi*, notes, **Rec. VI**, 730; **XII**, 650.

Pistachio nuts—

- food value, **Rec. XII**, 78.
- notes, **Rec. VIII**, 231.

Pistacia vera—

- culture on the Transcaucasus, **Rec. X**, 253.
- notes, **Rec. VI**, 729; **VIII**, 231.

Pistillodia of Podophyllum stamens, **Rec. VI**, 115.

Pistol case bearer—

- notes, **Rec. IX**, 367, 575.
- remedies, **Rec. IX**, 257; **X**, 269.

Pisum arvense, notes, **Rec. VI**, 45.

Pit—

- experiments with prairie soils, **Rec. IV**, 714.
- v. platform for manure, **Rec. X**, 797.

Pitcher plant moth, notes, **Rec. VI**, 1008.

Pith, growth of, **Rec. VII**, 467.

Pituophis cantenifer deserticola, n. sp., notes, **Rec. V**, 90.

Pitychodes trivittatus, notes, **Rec. IX**, 1065.

Pityophthorus—

- micrographus*, notes, **Rec. IX**, 471.
- minutissimus*, notes, **Rec. XI**, 764.

Placeas, notes, **Rec. X**, 641.

Plagiochila virginica, notes, **Rec. IV**, 642.

Plagiodera—

- purpurea*, notes, **Rec. X**, 769.
- scripta*, notes, **Rec. I**, 12, 21; **II**, 81.

Plagionotus speciosus, notes, **Rec. X**, 569; **XII**, 269, 272.

Plague—

- bacillus, **Rec. IX**, 194, 694.
- bubonic—
 - in animals, **Rec. XII**, 690.
 - treatment, **Rec. XI**, 91.
- Siberian, **Rec. VIII**, 525.

Plane tree—

- disease, **Rec. VI**, 910; **XI**, 861; **XII**, 360.
- notes, **Rec. III**, 521; **X**, 443.

Plane trees—

- nutritive materials in leaves, **Rec. XII**, 113.
 - of North America, **Rec. VII**, 775.
- (See also **SYCAMORES**.)

Planktology, methods, **Rec. X**, 929.

Plankton method, studies, **Rec. IX**, 530.

Plant— (See also **PLANTS**.)

- acids, effect on insoluble phosphates, **Rec. VIII**, 192.

Plant—Continued.

analysis—

- as a means of determining the potash requirements of the soil, **Rec. X**, 335.
- error, **Rec. XI**, 310.
- for estimating quality of soils, **Rec. VII**, 932; **VIII**, 308.
- and agricultural chemistry, **Rec. XI**, 617.
- soil analysis for determining value of soils, **Rec. V**, 730.

assimilation and respiration, **Rec. VII**, 836.

bed cloth as a substitute for glass, **Bul. 2**, **I**, 92.

breeding, **Rec. VI**, 541; **XI**, 44; **XII**, 344, 449, 613.

breeding—

- at experiment stations, **Rec. VI**, 266; **XI**, 202.
- by bud selection, **Rec. XI**, 1047; **XII**, 893.
- notes, **Rec. VII**, 866; **XII**, 441.
- progress, **Rec. V**, 548; **XII**, 421.
- race, **Rec. VII**, 750.
- studies, **Rec. VII**, 19, 347, 657, 926; **XI**, 463, 1099.
- text-book, **Rec. VII**, 562.
- utilization of hybrids, **Rec. X**, 516.

bug—

- banded leaf footed, notes, **Rec. XI**, 364.
- dusky, notes, **Rec. II**, 319.
- four-striped, notes, **Bul. 2**, **II**, 119.
- gray, notes, **Rec. III**, 784; **VI**, 150.
- green, **Rec. X**, 571.
- green, remedies, **Rec. X**, 460.
- leaf footed, **Rec. X**, 369.
- leafy-legged, notes, **Rec. II**, 101.
- northern leaf footed, notes, **Rec. XI**, 364.
- tarnished, notes, **Rec. I**, 9; **II**, 81, 318, 406, 734; **III**, 784; **IV**, 839; **V**, 791; **VII**, 42; **X**, 62, 168, 169, 368, 1066; **XI**, 367, 869, 952.
- yellow lined, **Rec. X**, 168.

cell—

- division of nucleus, **Rec. VIII**, 470.
- localization of respiration, **Rec. VII**, 467.
- membranes, **Rec. VI**, 14, 968.
- mineral requirements, **Rec. VII**, 277.
- phenomena, **Rec. IX**, 29.

cells—

- as affected by galls, **Rec. VIII**, 748.
- affected by strain and pressure, **Rec. VIII**, 566.
- affected by X-rays, **Rec. X**, 122.
- formation of proteids in, **Rec. VI**, 383.

colors—

- meaning, **Rec. VIII**, 867.
- physiology, **Rec. VII**, 839; **VIII**, 108.

constituents, inorganic, **Rec. VI**, 389.

covers, effect on—

- air of the soil, **Rec. VIII**, 570.
- constituents of the soil, **Rec. VIII**, 570.
- drainage, **Rec. VI**, 198.
- evaporation, **Rec. VI**, 199.
- flow of streams, **Rec. XII**, 1096.
- height of ground water, **Rec. VII**, 848.
- moisture of the soil, **Rec. VI**, 124, 198, 859.
- productiveness of soil, **Rec. VIII**, 570.
- temperature of the soil, **Rec. VI**, 124, 198.
- water content of the soil, **Rec. VI**, 124.
- water flow, **Rec. XII**, 696.

Plant—Continued.

- culture—
 - and diseases in Scandinavia, *Rec. X*, 724.
 - bibliography, *Rec. X*, 846.
 - frames, *Rec. VII*, 771.
 - in Denmark, *Rec. X*, 547.
 - nutrient solution for, *Rec. VII*, 749.
 - principles, *Rec. VIII*, 793.
 - under glass, early history, *Rec. X*, 641.
 - water supply, *Rec. III*, 107.
- development as affected by—
 - earthworms, *Rec. VIII*, 108.
 - mutilation of seed, *Rec. X*, 517.
- diseases, *Rec. X*, 562, 763, 971.
- diseases— (*See also different host plants.*)
 - and insects, law for suppression, *Rec. X*, 662.
- as affected by medium of growth, *Rec. XI*, 550.
 - affected by ridging soil, *Rec. XII*, 353.
 - affected by rotation of crops, *Rec. X*, 1051.
 - affected by shade, *Rec. X*, 435.
 - related to weather, *Rec. XI*, 758.
- at Ames, Iowa, in 1894, *Rec. VI*, 268.
- caused by animals, *Rec. XI*, 262.
- caused by bacteria, *Rec. XI*, 555.
- causes and means of repression, *Rec. VI*, 1000.
- control, *Rec. XII*, 359.
- dissemination, *Rec. IX*, 330, 361, 1061.
- due to nematodes, *Rec. XI*, 167.
- in Denmark, *Rec. VII*, 225; *VIII*, 240; *X*, 864; *XII*, 261.
- Germany, *Rec. VII*, 39.
- Holland, *Rec. X*, 155; *XI*, 562.
- Italy, *Rec. X*, 864; *XI*, 948.
- Nebraska, notes, *Rec. XII*, 61.
- Norway, *Rec. VII*, 793.
- relation to biological sciences, *Rec. VII*, 787.
- Sweden, *Rec. VII*, 44.
- Tennessee, *Rec. VIII*, 996.
- the Netherlands, *Rec. VII*, 513, 592.
- infectious, *Rec. X*, 562.
- laboratory for, *Rec. VI*, 831.
- laws concerning, *Rec. IV*, 76; *VIII*, 607, 912, 913; *IX*, 675; *X*, 662.
- notes, *Rec. III*, 172, 264, 327; *V*, 61, 877; *VII*, 141; *X*, 763; *XII*, 271, 359, 419, 461, 572, 698, 966, 997.
- parasitic, *Rec. VI*, 832; *VII*, 695.
- prevention, *Rec. X*, 457, 562, 783, 1057.
- prevention by natural methods, *Rec. XII*, 464.
- progress in treatment, *Rec. XII*, 460.
- recent publications, *Rec. VII*, 787.
- spread by means of seed, *Rec. IV*, 985.
- studies, *Rec. VI*, 584; *IX*, 251, 361.
- text-book, *Rec. VIII*, 899; *XI*, 555.
- transmission by soil inoculation, *Rec. XII*, 354.
- treatise, *Rec. XII*, 461, 573.
- treatment, *Rec. II*, 32, 749; *IV*, 500; *V*, 497; *VI*, 302.
- winter treatment, *Rec. XI*, 167.

doctors, need of, *Rec. VII*, 411.

Plant—Continued.

- enemies, kerosene for, *Rec. VII*, 316.
- fauna, notes, *Rec. IV*, 667.
- fibers, chemistry, *Rec. V*, 538, 647.
- foliage, testing soils by color of, *Rec. V*, 933.
- food—
 - assimilation, *Rec. VII*, 104.
 - atmospheric nitrogen, *Rec. I*, 194.
 - availability, *Rec. VII*, 94.
 - availability in worn soils, *Rec. X*, 275.
 - cost in various fertilizers, *Rec. IX*, 339; *X*, 337.
 - free nitrogen as, *Rec. VII*, 19.
 - in tablet form, analyses, *Rec. XI*, 138, 528.
 - loss by drainage water, *Rec. X*, 930.
 - loss in cultivated soils, *Rec. XI*, 134.
 - movement before fall of leaves, *Rec. X*, 922.
 - studies, *Rec. X*, 264.
- galls—
 - formed by insects, *Rec. VIII*, 567, 899.
 - oriental, *Rec. IX*, 61.
 - studies, *Rec. XI*, 167.
- growing under glass, progress, *Rec. XII*, 449.
- growth—
 - and climate in Argentina, *Rec. XI*, 821.
 - functions of roots, *Rec. IX*, 812.
 - gas pressure, relations, *Rec. IV*, 871, 958.
 - correlation of, *Rec. VIII*, 566; *IX*, 421, 847.
- growth as affected by—
 - aeration of the soil, *Rec. VII*, 664.
 - ammonium salts, *Rec. IX*, 622.
 - argon, *Rec. IX*, 725.
 - atmospheric conditions, *Rec. VII*, 464.
 - atmospheric electricity, *Rec. III*, 926; *VII*, 749.
 - atmospheric humidity, *Rec. XII*, 1014.
 - chlorids, *Rec. V*, 254.
 - cold v. warm water, *Rec. XI*, 540.
 - depth of surface soil, *Rec. VII*, 662.
 - fertilizers, *Rec. VII*, 196; *IX*, 939.
 - forest cover, *Rec. VIII*, 605.
 - gases and vapors, *Rec. X*, 822.
 - humidity, *Rec. IV*, 448; *V*, 114.
 - iron, *Rec. V*, 1097.
 - latitude, *Rec. IX*, 944.
 - lecithin, *Rec. IX*, 330.
 - light, *Rec. V*, 114, 115; *IX*, 329, 625, 940; *X*, 125, 414, 612, 614, 928.
 - meteorological conditions, *Rec. VI*, 618.
 - mineralogical composition of rock, *Rec. VI*, 881.
 - phosphates, *Rec. VII*, 293.
 - physical properties of the soil, *Rec. VI*, 635; *X*, 128.
 - removal to different latitude or altitude, *Rec. X*, 400.
 - shade, *Rec. VIII*, 957; *XI*, 420.
 - soil moisture, *Rec. V*, 522; *VII*, 19; *VIII*, 386, 477, 756; *IX*, 940.
 - soil water, *Rec. IV*, 614.
 - soils, *Rec. III*, 316.
 - solar radiation, *Rec. XI*, 907; *XII*, 909.
 - sterilized human excrement, *Rec. IX*, 35, 740.
 - sugar, *Rec. XII*, 615,

Plant—Continued.

- growth as affected by—continued.
 - temperature, *Rec. IX*, 940; *X*, 608.
 - temperature and moisture, *Rec. XII*, 910.
 - temperature and turgor, *Rec. VII*, 561; *VIII*, 204.
 - town atmosphere, *Rec. VI*, 278.
 - wind movement, *Rec. III*, 317.
- growth—
 - importance of potash in, *Rec. VI*, 400.
 - in soils of different properties, *Rec. IV*, 684.
 - sunlight and shade, *Rec. IV*, 314.
 - influence of mechanical strain, *Rec. VI*, 17.
 - inversion, *Rec. IV*, 613.
 - measurements of, *Rec. IV*, 352; *IX*, 921.
 - nitrates in, *Rec. VII*, 938.
 - periods of, *Rec. IX*, 1035; *XII*, 122.
 - phenologic or thermal constants in, *Rec. VI*, 509.
 - principles, *Rec. III*, 314.
 - rapidity, *Rec. V*, 539.
 - role of water, *Rec. X*, 121.
 - studies, *Rec. V*, 113; *XI*, 221.
 - treatise, *Rec. XII*, 911.
- histology, methods, *Rec. XI*, 29.
- house aleurodes, *Rec. VIII*, 418.
- houses, construction. (*See GREENHOUSES.*)
- individualism, *Rec. XI*, 249.
- injuries through use of insecticides, *Rec. VIII*, 418.
- kingdom, raw materials, *Rec. V*, 649; *XII*, 996.
- lessons, *Rec. IX*, 1028.
- lice—
 - affecting sugar beets, *Rec. XI*, 1057.
 - and allied insects, remedies, *Rec. VII*, 793.
 - autumn life history of certain little known, *Bul. 2*, II, 119.
 - biology, *Rec. V*, 991; *IX*, 158.
 - change of color, *Rec. VII*, 44.
 - fungus disease, *Rec. XI*, 564.
 - in egg state, destruction, *Rec. IV*, 84.
 - egg state, remedies, *Rec. IV*, 173.
 - insecticides for, *Rec. II*, 415.
 - kerosene emulsion for, *Rec. I*, 45; *III*, 222, 291, 870; *IV*, 173; *V*, 991; *XII*, 664.
 - kerosene for, *Rec. II*, 599.
 - natural enemies, *Rec. X*, 467.
 - notes, *Rec. II*, 253, 673, 720; *III*, 54; *IV*, 204, 840; *V*, 206, 992; *VI*, 443; *VIII*, 507, 999; *IX*, 767; *X*, 164, 168, 273, 569, 660, 661, 866, 975; *XI*, 173, 264, 657.
- on conifers, *Rec. X*, 374.
 - cottonwood trees, *Rec. III*, 182.
 - lettuce, tobacco powder for, *Rec. III*, 97.
 - rose bushes, kerosene emulsion for, *Rec. III*, 870.
 - sugar cane, *Rec. VIII*, 320.
 - sugar cane, notes, *Rec. XI*, 66.
 - tomatoes, *Rec. X*, 570.
- remedies, *Rec. I*, 45; *II*, 281; *III*, 878; *V*, 402; *VI*, 651; *IX*, 469; *X*, 65, 467, 661; *XII*, 578, 664.

Plant—Continued.

- life—
 - form and functions, *Rec. X*, 416.
 - Handbook of Minnesota, *Rec. XI*, 1014.
 - outlines, *Rec. XII*, 827.
- membranes, *Rec. V*, 922.
- morphology and biology, *Rec. VI*, 389.
- morphology, problems in, *Rec. VII*, 277.
- moth-catching, notes, *Rec. VII*, 93.
- names, popular, *Rec. VI*, 196, 388; *VIII*, 472.
- nodes, elongation, *Rec. X*, 23.
- nuclei, reduction phenomena, *Rec. X*, 23.
- nutrients, loss, *Rec. V*, 453.
- nutrition, *Rec. VI*, 968.
- nutrition—
 - and laws of growth, *Rec. V*, 749.
 - arsenic acid for, *Rec. IX*, 1028.
 - as affected by grafting, *Rec. XI*, 344.
 - asparagin in, *Rec. VII*, 655.
 - atmospheric ammonia in, *Rec. VIII*, 29.
 - experiments, *Rec. VII*, 656.
 - glycerin in, *Rec. VI*, 873.
 - mycorrhiza in, *Rec. V*, 923; *XII*, 219.
 - principles, *Rec. III*, 314.
 - replacement of lime by strontium, *Rec. V*, 539, 698.
- organs—
 - anatomy and physiology of water secreting, *Rec. X*, 1013.
 - as affected by decapitation, *Rec. VI*, 870.
 - affected by light, *Rec. VI*, 17.
 - development, *Rec. VII*, 564.
 - protection, *Rec. VIII*, 204.
 - variation in weight and respiration, *Rec. VII*, 464.
- parasites, *Rec. X*, 155.
- parasites—
 - of poultry, *Rec. XI*, 495.
 - treatment by intra-organic injections, *Rec. XI*, 656.
- pathology, *Rec. VII*, 725.
- pathology—
 - studies, *Rec. IX*, 61.
 - twenty years of progress, *Rec. XI*, 1099.
- pests, remedial legislation, *Rec. VI*, 647, 742.
- physiological and agricultural-chemical researches, *Rec. X*, 519.
- physiology, *Rec. IX*, 1027.
- physiology—
 - apparatus, *Rec. XI*, 28.
 - enzymic fermentations, *Rec. IX*, 624, 923.
 - experimental, *Rec. VIII*, 567.
 - guide to, *Rec. VII*, 94.
 - importance of phosphoric acid, *Rec. X*, 223.
 - practical, *Rec. X*, 321.
 - relation to other sciences, *Rec. XI*, 121.
- production—
 - as affected by factors of growth, *Rec. IX*, 330.
 - maximum of, *Rec. VIII*, 689.
- products of the Philippine Islands, *Rec. XI*, 497.
- protection, *Rec. VIII*, 891.
- protection—
 - review of literature, *Rec. XII*, 658.
 - station in Germany, *Rec. X*, 200.

Plant—Continued.

- protector, test, *Rec. II*, 599; *III*, 403.
 - relations, text-book, *Rec. XI*, 709.
 - roots—
 - action toward copper solutions, *Rec. V*, 649.
 - and stubble as manure, *Rec. II*, 201, 397.
 - as affected by distilled water, *Rec. XI*, 321.
 - seeds—
 - cane sugar in, *Rec. V*, 818, 1027.
 - protein content, *Rec. VIII*, 279.
 - sleep, significance, *Rec. VII*, 188.
 - soil tests, *Rec. X*, 711.
 - sprouts as affected by low temperature, *Rec. X*, 223.
 - structure as affected by—
 - carbon dioxid, *Rec. X*, 610.
 - ice, *Rec. VII*, 188.
 - influence of environment, *Rec. VII*, 371.
 - water and soils, *Rec. XI*, 515.
 - structure, studies, *Rec. VIII*, 566.
 - structures, text-book, *Rec. XI*, 909.
 - substances, key, *Rec. X*, 417.
 - swellings, notes, *Rec. XI*, 910.
 - thorns, notes, *Rec. VI*, 694.
 - tissues—
 - anatomy and physiology, *Rec. X*, 417.
 - as affected by bacteria, *Rec. IX*, 852.
 - assimilation of calcium chlorid, *Rec. V*, 923.
 - coloration of, as affected by the spectrum, *Rec. XI*, 907.
 - detection of cane sugar, *Rec. X*, 417.
 - pathogenic bacteria, *Rec. VII*, 928.
 - root tubercle bacteria, *Rec. X*, 123, 224.
 - tonic, analyses, *Rec. V*, 861.
 - tubercles, review, *Rec. V*, 649.
 - twining, mechanics, *Rec. VII*, 564, 925.
 - variation, *Rec. VII*, 19; *VIII*, 749; *XI*, 425.
 - walls, effect of strain and pressure, *Rec. VIII*, 566.
 - wounds, healing, *Rec. XI*, 116.
- Plantago*—
- alpina*, mountain pastures, *Rec. V*, 925.
 - aristata*, notes, *Rec. V*, 911; *VII*, 135; *VIII*, 866.
 - eripoda* (?), notes, *Rec. III*, 52.
 - gnaphalioides*, notes, *Rec. X*, 343.
 - hookeriana* (*aristata*), notes, *Rec. VI*, 903.
 - lanceolata*, notes, *Rec. II*, 25, 651, 655; *III*, 308, 396, 598, 893; *V*, 398, 399.
 - major*—
 - analyses, *Rec. XI*, 1008.
 - notes, *Rec. III*, 308, 598; *V*, 399; *VII*, 511.
 - mollis*, notes, *Rec. III*, 598.
 - patagonica aristata*, notes, *Rec. VI*, 732.
 - rugelii*, notes, *Rec. V*, 911.
- Plantago*, revision of species, *Rec. IX*, 624.
- Plantain—
- bracted, notes, *Rec. VII*, 135; *VIII*, 866; *IX*, 454.
 - buck, notes, *Rec. III*, 893.
 - common, notes, *Rec. V*, 399.
 - English, notes, *Rec. II*, 651.
 - flour, analyses, *Rec. XII*, 377.

Plantain—Continued.

- lance-leaved—
 - notes, *Rec. IV*, 47, 472.
 - root system, *Rec. IV*, 46.
- lily, notes, *Rec. V*, 401.
- long-leaved, eradication, *Rec. XI*, 749.
- narrow-leaved—
 - in clover fields, *Rec. II*, 25.
 - notes, *Rec. V*, 398, 399.
- root system, *Rec. IV*, 47.
- western, notes, *Rec. VI*, 732.
- woolly, notes, *Rec. X*, 343.

Plantains—

- analyses, *Rec. XI*, 1008; *XII*, 280.
- culture and uses, *Rec. VI*, 219.
- notes, *Rec. III*, 52, 308; *X*, 354; *XII*, 450.
- uses, *Rec. VII*, 585.

Plants—

- acclimatization, *Rec. V*, 1028; *VI*, 115; *VII*, 564, 653; *VIII*, 671; *IX*, 726, 1028; *XI*, 242, 296, 816, 1015.
- acid content, *Rec. VII*, 921; *VIII*, 26, 470.
- action of alkaloids, *Rec. VII*, 838.
- activity of contractile roots, *Rec. X*, 417.
- adaption to—
 - environment, *Rec. VIII*, 108.
 - light in arctic regions, *Rec. XII*, 421.
- agricultural—
 - breeding, *Rec. VII*, 347.
 - diseases, *Rec. VII*, 695.
 - improvement, *Rec. X*, 146.
 - root growth, *Rec. VI*, 140.
- albuminoids of, *Rec. V*, 648, 727.
- alpine—
 - leaf structures of, *Rec. V*, 424, 923.
 - production by alternation of temperatures, *Rec. XI*, 421.
- alumina in, *Rec. VI*, 784.
- anatomical variation of Mediterranean and Parisian, *Rec. V*, 1097.
- anatomy—
 - and physiology, *Rec. VIII*, 471; *X*, 121, 321.
 - elements of, *Rec. VII*, 370.
 - from standpoint of classification, *Rec. XI*, 121.
 - use of tannin dyes, *Rec. VII*, 750.
- and animals, *Rec. VI*, 786.
- and animals—
 - bodies, composition and metabolism, *Rec. VII*, 277.
 - breeding, improvement, *Rec. IX*, 649.
 - conformity of propagation, *Rec. IX*, 1028.
 - exchange of gases between, *Rec. V*, 729.
 - interdependence, *Rec. VII*, 839.
 - pentoses in, *Rec. VIII*, 106.
- and ants, *Rec. VII*, 698.
- atmosphere, exchange of gases between, *Rec. V*, 729.
- insects, interrelations, *Rec. IV*, 283.
- and seeds—
 - distribution, *Rec. IV*, 557; *V*, 683; *VI*, 822.
 - galactan in, *Rec. VIII*, 555.
- and soils—
 - as related to precipitation, *Rec. VII*, 373.
 - relation to atmospheric precipitation, *Rec. VI*, 283.

Plants—Continued.

and the air, carbonic acid and oxygen exchanges, Rec. IV, 443, 517, 870.
 animal, so-called, Rec. VIII, 419.
 antidromy, Rec. VII, 371.
 apparatus for registering growth, Rec. XI, 911.
 aquatic, as affected by—
 electricity, Rec. VIII, 380, 747.
 water currents, Rec. VIII, 290.
 arctic, anatomy of leaves, Rec. VI, 873.
 arganin in roots and tubers, Rec. VIII, 29.
 as affected by—
 acid gases, Rec. XI, 710.
 acidity of soil, Rec. X, 117, 128.
 aldehyde, Rec. V, 649.
 alkali, Rec. VIII, 568; XI, 397.
 alkaloids, Rec. IX, 625; XI, 317.
 arsenic, Rec. V, 1011.
 atmospheric precipitation, Rec. VIII, 676; IX, 427; X, 125.
 bacteria, Rec. XII, 614.
 barium and cobalt, Rec. VII, 467.
 bud variation, Rec. X, 613.
 calcium salts, Rec. VIII, 106; X, 613.
 carbon bisulphid, Rec. VIII, 40, 498.
 carbonic acid in soil, Rec. V, 539.
 city fog, Rec. V, 818.
 climatic conditions, Rec. VII, 468; IX, 1035; XII, 122.
 cold, Rec. VI, 777.
 copper, Rec. VI, 872; IX, 1028; X, 611.
 different kinds of light, Rec. XII, 110.
 drought, Rec. VII, 564; IX, 921.
 electricity, Rec. III, 517; IV, 315, 352; V, 127, 294, 295, 783, 905; VI, 142, 543, 638, 809; VII, 188, 559, 925; VIII, 380, 747; X, 122, 825; XI, 25, 552, 1016; XII, 825.
 fog, Rec. XI, 1016; XII, 826.
 frost, Rec. VII, 189, 749; IX, 31.
 heat rays, Rec. IX, 526.
 Hertz electric waves, Rec. V, 254.
 hydrocyanic-acid gas, Rec. XI, 1009.
 lightning, Rec. X, 560.
 magnesia, Rec. XI, 1023.
 magnesium light, Rec. V, 649.
 nickel salts, Rec. V, 697.
 nitric acid, Rec. VI, 617.
 nitrogen acids, Rec. VII, 186.
 phenols, Rec. IX, 421, 1028; X, 929.
 poisons, Rec. VII, 564.
 potassium perchlorate, Rec. XI, 331.
 rain, Rec. IX, 330.
 Roentgen rays, Rec. IX, 725; XI, 321.
 salt water, Rec. VII, 680; XI, 24.
 salts, Rec. VIII, 744.
 San José scale, Rec. IX, 1068.
 smoke, Rec. IX, 727; XII, 826.
 sodium, Rec. XI, 513.
 sodium sulphite, Rec. IX, 622.
 soil conditions, Rec. V, 434.
 soil moisture, Rec. V, 552.
 strychnin solutions, Rec. VI, 279.
 sunlight and shade, Rec. XI, 420.
 tannin, Rec. IX, 25, 329.
 temperature, Rec. XII, 120.
 toxins, Rec. XI, 122.
 zinc in soil, Rec. XI, 328.

Plants—Continued.

as affecting quality and odor of milk, Rec. VI, 580.
 assimilation, Rec. VIII, 287; IX, 28.
 assimilation as affected by hydrochloric acid, Rec. XII, 912.
 assimilation of—
 ammoniacal nitrogen, Rec. VIII, 386; IX, 325, 330, 922, X, 1011.
 argon, Rec. VI, 787.
 carbohydrates, Rec. XI, 317.
 chlorophyll, Rec. X, 517.
 humus, Rec. VI, 284; VII, 23.
 lecithin, Rec. VII, 743.
 mineral elements, Rec. XI, 121, 216.
 mineral matter, Rec. V, 454.
 nitrogen. (See NITROGEN ASSIMILATION.)
 organic substances, Rec. VI, 284.
 potash, Rec. VIII, 670.
 potash salts, Rec. X, 1013.
 soil chlorin, Rec. XI, 132.
 soluble salts, Rec. XI, 1009; XII, 313.
 solutions through stems, Rec. XI, 815.
 ash constituents, Rec. V, 1027.
 assimilatory tissues, Rec. VIII, 670; IX, 421; X, 417.
 autumn coloring, Rec. XI, 113.
 bacterial—
 diseases, Rec. V, 1018, 1030; VIII, 142; X, 397.
 rots, Rec. XI, 259, 468.
 barium in, Rec. XI, 619.
 bibliography of fungus and bacterial diseases, Rec. V, 1077.
 blossoming periods, Rec. X, 418.
 Brazilian, insects affecting, Rec. XI, 476.
 bud variation, Rec. VI, 786; XI, 424.
 bulbous—
 culture, Rec. IX, 756.
 in North Carolina, Rec. VI, 143.
 ornamental, fungus diseases, Rec. VI, 826.
 calcium oxalate in, Rec. VI, 386.
 calcium phosphate in, Rec. VII, 277, 467.
 cane sugar in, Rec. VII, 468, 747.
 care of delicate native, Rec. V, 1099.
 carnivorous, digestive process, Rec. V, 648.
 cell walls, Rec. X, 417.
 centrosomes, Rec. IX, 1027.
 chemistry of coloring matter, Rec. VIII, 566.
 classification of variation, Rec. VII, 19.
 closing stomata at night, Rec. XI, 115.
 cold *v.* warm water for, Rec. XI, 296, 540.
 collected—
 by U. S. S. *Albatross*, Rec. IV, 374.
 in Indian Territory and adjacent regions, Rec. IV, 580.
 lower California and western Mexico, Rec. II, 303.
 southern and lower California, Rec. II, 80.
 Texas, Rec. II, 80.
 western Mexico and Arizona, Rec. III, 103.
 on Carmen Island, Rec. IV, 374.
 collecting, preserving, and studying, Rec. II, 169.

Plants—Continued.

color—

as affected by photosynthesis, *Rec. XI*, 1011.

physiology of, *Rec. VII*, 839; *VIII*, 108.

coloring matter, *Rec. VI*, 968; *VII*, 750.

comparative structure of Arctic and Alpine, *Rec. VI*, 616.

copper content, *Rec. VIII*, 105; *X*, 825; *XI*, 24, 1012.

cork formation, *Rec. IX*, 330.

correlation of growth, *Rec. VIII*, 566; *IX*, 421, 847.

cross fertilization by bees, *Rec. I*, 297.

cruciferous. (*See CRUCIFERS.*)

cultivated—

ash as affected by fertilizers, *Rec. IX*, 45.

behavior toward soil water, *Rec. VII*, 751.

breeding, *Rec. VII*, 347.

chlorophyll production, *Rec. VII*, 465.

diseases, *Rec. X*, 562, 971.

diseases and injuries, *Rec. IX*, 61, 568.

effects of selection on, *Rec. XI*, 3.

evolution, *Rec. VII*, 657.

fertilizer requirements, *Rec. VII*, 664.

fungi, *Rec. VI*, 909.

injurious animals, *Rec. IX*, 862.

insect attacks, *Rec. VIII*, 70.

of German colonies, *Rec. IX*, 943.

Juan Fernandez, *Rec. V*, 1028.

on the shores of the Mediterranean, manual, *Rec. V*, 819.

origin, *Rec. VII*, 19, 277.

parasitic fungi, *Rec. X*, 266.

parasitic worms, *Rec. X*, 170.

physiological action of potash salts, *Rec. V*, 548.

physiology, *Rec. VIII*, 2.

principal fungus diseases, *Rec. XI*, 59.

root galls, *Rec. IX*, 251.

root systems of, *Rec. XII*, 516.

spectroscopic examination, *Rec. IX*, 323.

synopsis of diseases, *Rec. V*, 592.

culture, root systems of, *Rec. VII*, 94.

death at temperatures above freezing, *Rec. VIII*, 471.

decomposition of albuminoid substances, *Rec. IX*, 227.

deposition of silica, *Rec. VIII*, 957.

determination of—

chlorin, *Rec. X*, 1004.

iron in ash of, *Rec. V*, 817.

manganese, *Rec. IX*, 1023; *X*, 605.

pentosans, *Rec. VI*, 693.

pentoses, *Rec. V*, 613.

phosphorus, *Rec. X*, 1004.

sulphur, *Rec. X*, 1004.

diastase in, *Rec. V*, 538; *VI*, 786.

diastatic ferment in, *Rec. V*, 1097.

digestion, *Rec. VII*, 467.

dissemination by stock cars, *Rec. X*, 418.

distribution, *Rec. II*, 392; *III*, 444, 596; *V*, 590; *IX*, 944; *X*, 253, 963.

distribution—

of glutamin in, *Rec. VIII*, 669.

pentosans, *Rec. IX*, 726.

on the south side of the Alps, *Rec. VIII*, 291.

Plants—Continued.

dormant period, *Rec. VII*, 467.

dried, preservation, *Rec. VIII*, 657.

dwarfing experiments, *Rec. XI*, 548, 910.

early experiments in crossing, *Rec. VII*, 564.

economic—

diseases, *Rec. VII*, 592.

for culture in the West Indies, *Rec. VIII*, 134.

fungus diseases, *Rec. X*, 266.

in King Williams Land, *Rec. V*, 253.

edible wild, *Rec. IX*, 51, 139.

emission of liquids, *Rec. IX*, 29.

emptying of reserve cells, *Rec. VIII*, 108.

energy, *Rec. V*, 344.

environment, *Rec. IX*, 921.

epiphytic, clinging and nourishing roots of, *Rec. V*, 818.

essence of wintergreen in, *Rec. VI*, 873.

etiolated, periodicity, *Rec. V*, 114.

etiolation, *Rec. VIII*, 290.

evergreen, physiology and biology, *Rec. VIII*, 290.

evolution—

among, *Rec. VI*, 874; *VIII*, 565.

as influenced by nutrition, *Rec. X*, 23.

of cultivated, *Rec. VII*, 657.

treatise, *Rec. XI*, 318.

excretion of hydrogen, *Rec. V*, 923.

farm, box culture, *Rec. II*, 125.

feeding, *Rec. IX*, 756.

fertilizer requirements, *Rec. VII*, 108, 851; *X*, 235.

fertilizing with liquid manures, *Rec. XI*, 242.

fixation of free nitrogen. (*See NITROGEN ASSIMILATION.*)

fleshy, embryo sac, *Rec. VIII*, 28.

flowering, *Rec. V*, 253.

flowering—

list of, *Rec. II*, 253.

red pigment, *Rec. IX*, 422.

studies, *Rec. VI*, 487.

under colored screens, *Rec. VI*, 694.

flowerless, *Rec. IX*, 726.

food, of North American Indians, *Rec. VII*, 63.

for alkali soils, *Rec. XI*, 397.

Alpine gardens and rockeries, *Rec. XI*, 52.

forage and green manuring, *Rec. VII*, 31; *XII*, 849.

identification, notes, *Rec. XII*, 912.

litter, *Rec. X*, 349.

rabbit-infested country of South Queensland, *Rec. XI*, 220.

rockeries, *Rec. XI*, 52.

sandy soils, *Rec. VII*, 398.

forage, *Rec. IX*, 241.

forage—

culture experiments, *Rec. VIII*, 43.

new, *Rec. VIII*, 47; *IX*, 241.

foraging powers for phosphoric acid, *Rec. VII*, 111, 853; *VIII*, 757.

forcing by ether, *Rec. XII*, 243.

form and characters as affected by fungi, *Rec. XI*, 121.

form and structure as affected by—

light, *Rec. X*, 517; *XII*, 110.

mineral salts, *Rec. X*, 1008.

Plants—Continued.

formation—

and decomposition of organic acids by, **Rec. VI**, 191.

of albuminoids, **Rec. V**, 648; **VIII**, 668; **IX**, 526, 625.

asparagin, **Rec. X**, 726.

calcium oxalate in, **Rec. VIII**, 108.

etheral oils, **Rec. V**, 923.

fatty and essential oils in, **Rec. V**, 1027.

ice, **Rec. VII**, 188, 467.

nitrogenous compounds in, **Rec. VIII**,

669.

nitrogenous matter, **Rec. VII**, 921.

pentoses in, **Rec. VIII**, 106, 513.

protein in, **Rec. VIII**, 566.

resin, **Rec. V**, 923; **XII**, 519.

starch and chlorophyll, **Rec. VII**, 275.

formic aldehyde for nourishing green parts, **Rec. IV**, 290.

freezing **Rec. IX**, 330.

from Mexico and the United States, new species, **Rec. VII**, 657.

the Big Horn Mountains, Wyoming, **Rec. VIII**, 291.

Wyoming, new, **Rec. X**, 518.

frosted, absorption and transpiration in, **Rec. IV**, 517, 680.

function of hydrocyanic acid, **Rec. X**, 929.

fungus diseases—

bibliography of, **Rec. V**, 1077.

notes, **Rec. II**, 110, 169, 267, 481, 581; **V**, 821; **VII**, 220, 692; **VIII**, 898.

principal, **Rec. XI**, 59.

treatment, **Rec. II**, 32, 173, 654.

furfurol constituents, **Rec. VI**, 869.

gas exchange of, **Rec. VI**, 787.

geographical distribution in North America, **Rec. VII**, 471.

geophilous, biology, **Rec. VII**, 838.

geotropic movements, **Rec. X**, 321.

germinated, chlorophyll, **Rec. VII**, 468.

germinating—

asparagin and glutamin in, **Rec. IX**, 526.

experiments with Roentgen rays, **Rec. VII**, 839.

nitrites, **Rec. VIII**, 27.

nourishment, **Rec. V**, 818.

glutamin in, **Rec. VII**, 93; **VIII**, 669; **X**, 116.

greenhouse. (See GREENHOUSE PLANTS.)

green manuring, **Rec. VIII**, 299.

green parts nourished with formic aldehyde, **Rec. IV**, 290.

grown in shade, intensity of respiration, **Rec. V**, 434.

growth—

daily, **Rec. V**, 115.

of lignified parts, **Rec. IV**, 613.

under different-colored glass, **Rec. VI**, 191; **VII**, 746; **VIII**, 26.

gums and resins exuded by, **Rec. VIII**, 285.

hardy—

reproduction by hybridization and crossing, **Rec. XII**, 613.

spontaneous hybrid, **Rec. XI**, 249.

health in greenhouses, **Rec. VIII**, 791.

heliotropism, **Rec. VIII**, 670.

Plants—Continued.

herbaceous—

effect of electric light, **Rec. IV**, 315.

frost freaks, **Rec. V**, 741.

grafting, **Rec. VII**, 505.

hermaphroditism in, **Rec. VI**, 195.

how they attract insects, **Rec. IX**, 330.

humus as a food for, **Rec. V**, 18.

hydrocyanic acid in, **Rec. X**, 223.

hydrogen peroxid in, **Rec. VI**, 615; **VII**, 655.

hypertrophy, **Rec. VIII**, 957.

importance of structural details in study of, **Rec. V**, 1104.

improvement, **Rec. X**, 151.

improvement—

by selection, **Rec. XI**, 423.

investigations in Sweden, **Rec. X**, 519.

in ancient and modern times, **Rec. X**, 418.

meadows, distribution, **Rec. VII**, 681.

the greenhouse as affected by sulphur anhydrid, **Rec. X**, 417.

indigenous—

of Natal, **Rec. VI**, 278.

Sao Paulo, **Rec. VII**, 750.

industrial, **Rec. VI**, 898.

injured, respiration, **Rec. VIII**, 746.

injuries by—

asphalt vapors, **Rec. IX**, 61.

smoke, **Rec. VIII**, 240.

injury by fumigation with hydrocyanic-acid gas, **Rec. XII**, 613.

inland, structure of the assimilating tissues of stems, **Rec. IV**, 314.

inorganic constituents, **Rec. VI**, 389.

insectivorous, **Rec. VI**, 388.

insectivorous—

notes, **Rec. VII**, 93.

nutrition, **Rec. VIII**, 564.

introduced, of Iowa, **Rec. IX**, 1027.

introductions, **Rec. X**, 927; **XI**, 319.

inulin content, **Rec. VII**, 643.

iron content, **Rec. IV**, 984; **VII**, 468.

irritability, **Rec. VI**, 17.

irritability—

and movement, **Rec. VII**, 19.

contact, **Rec. X**, 1013.

latent, **Rec. V**, 648.

karyokinesis, **Rec. VII**, 140.

laccase content, **Rec. VII**, 185, 279.

lecithin—

content, **Rec. VI**, 270; **VIII**, 108.

in, origin, **Rec. X**, 613.

light required by, **Rec. VI**, 873; **VII**, 749.

ligneous, root rot, **Rec. IX**, 960.

liquid manure for, **Rec. III**, 107; **XI**, 242.

localization of—

active principles, **Rec. VII**, 838.

oxalic acid in, **Rec. IV**, 985.

magnesium salts, function in, **Rec. IV**, 221.

malate, **Rec. IX**, 812.

malophosphate of lime, **Rec. IX**, 812.

marine, *Pseudocommis vitis* on, **Rec. IX**, 457.

maritime, structure as affected by external agents, **Rec. XI**, 321.

means of defense, **Rec. X**, 23.

mechanism of movement, **Rec. VIII**, 290.

Plants—Continued.

- medicinal—
 - cultivation, *Rec. XII*, 954.
 - geographical distribution, *Rec. VIII*, 291.
 - of North Carolina, *Rec. VI*, 278; *X*, 612.
- melliferous, studies, *Rec. X*, 167.
- metabolism—
 - and respiration, *Rec. VI*, 276.
 - as affected by tannic acid, *Rec. V*, 649; *VI*, 195.
 - of proteids in, *Rec. XII*, 1012.
 - protein, *Rec. XI*, 321.
- methods of improvement, *Rec. XI*, 442.
- methyl alcohol in, *Rec. XI*, 121.
- methyl salicylate in, *Rec. XI*, 121.
- methyl salicylic ether in, *Rec. VI*, 389.
- mineral—
 - constituents, importance to cattle, *Rec. VIII*, 157.
 - requirements, *Rec. VII*, 23.
- moisture requirements, *Rec. X*, 417.
- Monilia disease of, *Rec. XI*, 949.
- movement of—
 - sap, *Rec. IX*, 812.
 - water, *Rec. IX*, 624.
- mucilage content, *Rec. VI*, 873; *VII*, 644.
- mucin content, *Rec. VI*, 386.
- native and cultivated of Sweden, *Rec. VII*, 756.
- natural history, *Rec. VI*, 279.
- new —
 - species, *Rec. V*, 327.
 - system of classification, *Rec. VIII*, 289.
- New Zealand seedlings, *Rec. XII*, 421.
- nitrates in, *Rec. V*, 729; *VIII*, 105.
- nitrogen—
 - feeding, *Rec. VII*, 837.
 - free extract, *Rec. VIII*, 641.
 - nutrition, *Rec. X*, 1011.
- nonleguminous, assimilation of free nitrogen, *Rec. VI*, 16, 381.
- nuclear division, *Rec. VII*, 839, 926; *VIII*, 957.
- nutrition, *Rec. VIII*, 957; *X*, 1013.
- nutritive solutions for, *Rec. V*, 763.
- of Columbia, Mo., ecology, *Rec. XI*, 1015.
- Formosa, oil-producing, *Rec. V*, 435.
- Maine, supplemental catalogue, *Rec. VII*, 278.
- Mexico and Central America, studies, *Rec. IX*, 623; *XII*, 24.
- Mississippi, species, *Rec. II*, 658.
- northern Idaho, catalogue, *Rec. VII*, 465.
- Ocracoke Island, ecological study, *Rec. XII*, 720.
- orchidaceous, manual, *Rec. VI*, 694.
- saline soils, *Rec. IX*, 812, 921.
- the Northwestern States, *Rec. VI*, 487.
- Yellowstone Hot Springs, *Rec. IX*, 506.
- organic matter, *Rec. IX*, 903.
- organography, *Rec. X*, 612.
- origin and function of transition tissue, *Rec. IX*, 1028.
- ornamental. (*See* ORNAMENTAL PLANTS.)
- overfeeding, *Rec. XI*, 553.
- packing and shipping, *Rec. XII*, 345.
- parasitic, *Rec. VII*, 787.
- pectase content, *Rec. VII*, 656.

Plants—Continued.

- peculiar white flowered, *Rec. VIII*, 108.
- perfume yielding, *Rec. XI*, 453.
- periodicity of—
 - root growth, *Rec. VI*, 115.
 - root pressure, *Rec. IX*, 810.
- phanerogamous, nitrogen feeding, *Rec. X*, 235.
- phosphorous content, *Rec. VI*, 873.
- physiological—
 - experiments with, *Rec. V*, 649.
 - function of iron, *Rec. X*, 518.
 - importance of furfuroids, *Rec. XI*, 121.
 - nature of acclimatization, *Rec. XI*, 816.
 - rôle of water, *Rec. VII*, 366; *VIII*, 3.
 - significance of myrosin in, *Rec. V*, 344, 654, 913.
 - study, *Rec. VI*, 873.
- physiology of root growth, *Rec. VIII*, 596.
- pitchered, *Rec. VI*, 388.
- pitchered insectivorous, *Rec. V*, 648.
- poisonous, *Rec. V*, 319, 1104; *XI*, 796; *XII*, 886.
- poisonous—
 - feeding to cattle, *Rec. I*, 295.
 - feeding to sheep, *Rec. X*, 793.
 - notes, *Rec. VI*, 335, 468, 969; *X*, 725; *XII*, 419.
 - of Australia, *Rec. X*, 519.
 - Germany, *Rec. IX*, 653.
 - meadows and pastures, *Rec. X*, 361.
 - New Jersey, *Rec. VII*, 689.
 - New South Wales, *Rec. VII*, 19.
 - the United States, *Rec. X*, 516, 928.
 - western Australia, *Rec. XI*, 220.
 - to man, *Rec. XI*, 112.
 - stock, *Rec. I*, 295; *II*, 395; *IV*, 924; *VII*, 38; *VIII*, 892; *IX*, 957; *X*, 54; *XI*, 113, 120, 220, 696, 909, 1057; *XII*, 218, 891.
 - (*See also* CATTLE POISONING.)
- pollination, *Rec. III*, 297; *IX*, 139.
- pollination, close, *Rec. X*, 415.
- pothed—
 - fertilizer experiments, *Rec. X*, 49.
 - watering, *Rec. VIII*, 55.
- producing poisonous honey, *Rec. XI*, 271.
- production of Alpine characters, *Rec. X*, 608.
- promotion of fruitfulness, *Rec. III*, 107.
- propagating by cuttings, *Rec. VIII*, 701; *X*, 353.
- propagation, *Rec. XI*, 251.
- propagation, cost, *Rec. V*, 925.
- protection—
 - against animals, *Rec. X*, 121.
 - against fungi, *Rec. XI*, 555.
 - from frost, *Rec. VI*, 621.
- protein formation, *Rec. X*, 223, 825, 925.
- proteolytic enzymes, *Rec. X*, 1017.
- protoplasm, *Rec. VI*, 694.
- race breeding, *Rec. VII*, 750.
- rare and interesting, in Ohio, *Rec. V*, 280.
- red cell sap in, *Rec. XI*, 121.
- regeneration of injured roots, *Rec. IX*, 1028.
- regulations of foreign governments regarding importation, *Rec. XII*, 775.
- relation between size and structure, *Rec. V*, 650.

Plants—Continued.

- reserve—
 - cells, spontaneous emptying, *Rec. VIII*, 108.
 - material, *Rec. VII*, 747.
 - protein, *Rec. VI*, 387; *VII*, 655.
- resistance to disease as affected by medium, *Rec. XI*, 550.
- resistant to alkali, *Rec. XII*, 621.
- respiration, *Rec. VIII*, 108; *IX*, 326, 1026.
- respiration—
 - and heat production, *Rec. VIII*, 471.
 - as affected by anesthetics, *Rec. XII*, 112.
 - affected by light, *Rec. IV*, 857, 870; *V*, 728, 818.
 - affected by temperature, *Rec. XI*, 421, 515; *XII*, 112.
 - affected by various substances, *Rec. XI*, 320.
 - experiments, *Rec. VII*, 467.
 - influence of light on, *Rec. V*, 728, 818.
 - intramolecular, *Rec. IV*, 221; *VI*, 115.
 - intramolecular, rôle of carbohydrates, *Rec. VI*, 113.
 - mechanism, *Rec. VI*, 388.
 - observations on, *Rec. IV*, 517.
- response to stimuli, *Rec. VIII*, 670.
- resting periods, *Rec. VIII*, 203.
- reversion, *Rec. V*, 345; *VI*, 18.
- root—
 - pressure, *Rec. III*, 616.
 - systems, *Rec. VII*, 656.
- rosaceous, leaf spot, *Rec. XI*, 759.
- sampling, *Rec. IV*, 950.
- sand culture, *Rec. V*, 762.
- seasonal dimorphism, *Rec. XII*, 24.
- selection of organic food materials, *Rec. VII*, 835.
- self-sterility, *Rec. XII*, 613.
- sensibility, *Rec. VIII*, 290.
- sensitive, grown in water, *Rec. X*, 122.
- sensitiveness, *Rec. V*, 923.
- separation of alumina, *Rec. VII*, 271.
- sexual—
 - development, *Rec. V*, 729.
 - reproduction, *Rec. VIII*, 29.
- sexuality, *Rec. IX*, 328, 812; *X*, 519.
- shade—
 - and ornamental, of New South Wales, *Rec. VIII*, 134, 291.
 - loving, intensity of respiration, *Rec. III*, 831; *IV*, 613.
- significance of classifying by various organs, *Rec. V*, 728.
- specific heat, *Rec. IX*, 625.
- spraying, *Rec. VII*, 591.
- stand in good and bad meadows, *Rec. VIII*, 491.
- starch in, during winter, *Rec. VII*, 926.
- storage of nitrogen, *Rec. IX*, 524.
- structure and development of spermatozoa in, *Rec. VI*, 969.
- struggle for existence under cultivation, *Rec. VI*, 488.
- submerged, effect of various substances on respiration and assimilation, *Rec. XI*, 320.
- succulent, drying, *Rec. IX*, 422.

Plants—Continued.

- sugar content as affected by sunlight, *Rec. X*, 1013.
- sulphur content, *Rec. XI*, 723.
- symbiosis, *Rec. VI*, 969; *VII*, 372.
- temperature, *Rec. V*, 1028; *X*, 921; *XI*, 315.
- terrestrial, as affected by humidity of soil, *Rec. VII*, 19.
- tolerance for alkali salts, *Rec. X*, 226.
- transfer of water, *Rec. IX*, 330.
- transmission of—
 - ancestral forms, *Rec. VII*, 564.
 - lateral pressure, *Rec. V*, 344.
- transpiration, *Rec. VII*, 372, 463, 467, 560, 926; *X*, 122, 447, 822; *XI*, 118, 221, 908.
- transpiration—
 - and absorption as affected by freezing, *Rec. IV*, 680.
 - as affected by colored light, *Rec. VI*, 507.
 - in sunlight and shade, *Rec. IV*, 314.
 - studies, *Rec. X*, 122.
- transplanted, as affected by light, *Rec. V*, 923.
- transportation of carbohydrates, *Rec. VIII*, 106.
- trehalose formation, *Rec. VII*, 366.
- tropical—
 - animal and plant parasites of, *Rec. XI*, 948.
 - preservation during transportation, *Rec. IV*, 517.
- under glass—
 - health, *Rec. VI*, 873.
 - treatment of mildew on, *Rec. II*, 33.
- used by Klamath Indians of Oregon, *Rec. IX*, 623.
- useful—
 - in dairying, *Rec. V*, 1066.
 - of Australia, *Rec. VII*, 765, 839; *VIII*, 28.
 - Mexico, *Rec. XII*, 24.
- utilization of crude phosphates, *Rec. XI*, 913.
- variability of species with situation, *Rec. VII*, 94.
- variation, *Rec. VIII*, 749; *XI*, 425.
- variation, classification of, *Rec. VII*, 19.
- variegated, fungus attacks, *Rec. X*, 59.
- vegetable organs, *Rec. VII*, 467.
- vegetative—
 - and reproductive parts, *Rec. VI*, 37.
 - period in different climates, *Rec. X*, 720.
- waste products, *Rec. V*, 649; *VI*, 968.
- water—
 - as a factor in growth, *Rec. VII*, 467.
 - consumption as affected by potash salts, *Rec. VIII*, 765.
 - movement in, *Rec. VIII*, 471.
 - soluble substances, *Rec. VII*, 186.
- watering, *Rec. X*, 553.
- watering, notes, *Rec. III*, 107.
- western, new species, *Rec. VII*, 564.
- wild—
 - leguminous, collection of seed, *Rec. V*, 934.
 - popular use, *Rec. VII*, 278.
- winds injurious to, *Rec. VI*, 695.
- with underground shoots, biology, *Rec. VII*, 94.

Plants—Continued.

- woody—
 - anatomy of hypocotyl and epicotyl, Rec. XI, 28.
 - biology, Rec. VIII, 471.
 - grafting under glass, Rec. V, 1017.
 - healing wounds in, Rec. VIII, 792.
 - physiology, Rec. VII, 563.
 - study of seedlings, Rec. XI, 28.
 - wounded, evolution of heat, Rec. IX, 26.
 - yielding, rennet, Rec. V, 1049.
- Plasmodiophora*—
 - brassicæ*. (See CABBAGE AND TURNIP CLUB ROOT.)
 - californica*, notes, Rec. IV, 380; XI, 466.
 - sp., as a cause of brunisure of the grape, Rec. VI, 230.
 - lomatii*, notes, Rec. VI, 1000.
 - vitis*, notes, Rec. V, 423; XI, 466; XII, 465.
- Plasmodium, life history, Rec. XI, 658.
- Plasmolysis—
 - and plasmotic membranes, Rec. X, 417.
 - of bacteria, Rec. X, 322.
- Plasmon—
 - as a substitute for albumen, Rec. XII, 177.
 - food value, Rec. XII, 177, 379.
- Plasmodiophora*—
 - cubensis*—
 - host plants, Rec. XI, 57.
 - notes, Rec. V, 192; X, 362; XI, 357; XII, 566, 1056.
 - on squash, Rec. X, 455.
 - geranii*, notes, Rec. IV, 51; V, 399.
 - habetedii*, notes, Rec. IV, 50; V, 399.
 - pygmaea*—
 - notes, Rec. IV, 51; V, 399.
 - parasitic on *Anemone ranunculoides*, Rec. VI, 436.
 - viticola*. (See GRAPE DOWNY MILDEW.)
 - vitis*, notes, Rec. XI, 260.
- Plaster. (See GYPSUM.)
- Plat experiments, Rec. V, 780.
- Plat experiments—
 - at Dresden Station, Rec. III, 350.
 - Halle Station, Rec. III, 276.
 - errors, Rec. III, 320.
 - factors tending to vitiate results, Rec. XI, 1036.
 - methods, Rec. VII, 176; VIII, 537, 597.
 - suggestions regarding, Rec. II, 133.
- Platanus*—
 - occidentalis*, notes, Rec. I, 26; III, 521; XII, 153.
 - orientalis*, notes, Rec. X, 443.
- Plate culture, Koch's, Rec. V, 435.
- Plate cultures—
 - bacterial, Rec. VIII, 473.
 - improvement, Rec. VI, 18.
- Plathelminthes, phylogeny, Rec. IX, 193.
- Platinic chlorid, test of purity, Rec. III, 660.
- Platinum—
 - as affected by phosphorus, Rec. VIII, 562.
 - catalysis, Rec. XI, 706.
 - chlorid, recovery of waste, Rec. VIII, 861.
 - fusibility, Rec. VII, 834.
 - iridium vessels, durability, Rec. VIII, 734.
- Plats—
 - equalizing irregularities due to defective germination, Rec. II, 269.
 - grass and turf, formation, Rec. V, 731

Platyccerus—

- depressus*, notes, Rec. X, 168.
 - quercus*, notes, Rec. X, 168.
- Platygaster*, development, Rec. X, 170.
- Platygeomys*—
- planiiceps*, notes, Rec. VI, 787.
 - tylorhinus*, notes, Rec. VI, 787.
- Platymetopius*—
- aculus*, notes, Rec. VII, 143.
 - cinereus*, notes, Rec. IX, 153.
 - fuscifrons*, n. sp., notes, Rec. VI, 564.
 - loriculus*, n. sp., notes, Rec. VI, 564.
- Platynota*—
- rostrana*, notes, Rec. IX, 370.
 - scalana*, notes, Rec. IX, 370.
- Platypedia putnami*, notes, Rec. IX, 767.
- Platygamia cecropia*, notes, Rec. I, 21, 232; II, 115, 663, 664; III, 396; VII, 880; XII, 68.
- Playgrounds, management and improvement, Rec. XII, 649.
- Pleocnectria berolinensis* on currant canes, Rec. VIII, 607.
- Pleocnecyptera fluitima*, notes, Rec. V, 328.
- Pleospora*—
- caraganae*, n. sp., description, Rec. XII, 1957.
 - fadens*, notes, Rec. VIII, 867.
 - lucis* on *Sorothamnus scoparius*, Rec. VI, 311.
 - oligoslachyæ*, notes, Rec. VIII, 867.
 - tropæoli*, notes, Rec. V, 400.
- Pleroma bonascula*, notes, Rec. X, 770.
- Pleurisy—
- due to bacilli, Rec. IX, 192.
 - in cattle, Rec. XII, 892.
 - sheep, nature and treatment, Rec. III, 619.
 - weed, analyses, Rec. III, 629.
- Pleurococcus vulgaris* on greenhouse plants, Rec. XI, 906.
- Pleuro-pneumonia—
- acute fibrinous, Rec. XI, 796.
 - contagious—
 - in cattle, notes, Rec. XII, 488, 790.
 - cattle, treatment, Rec. XII, 491.
 - notes, Rec. XI, 894.
 - of horses, immunization, Rec. XI, 1092.
 - outbreak in New Zealand, Rec. XI, 995.
 - prevention, Rec. XI, 894.
 - eradication, Rec. IV, 227.
 - etiology, Rec. XI, 1091.
 - in Belgium, Rec. IX, 192.
 - cattle, studies, Rec. VI, 472.
 - dairy herds, Rec. XII, 788.
 - goats, Rec. VIII, 928.
 - Great Britain, Rec. IX, 892.
 - Great Britain, Scotland, and Ireland, Rec. III, 729.
 - Kansas, supposed outbreak, Rec. IX, 893.
 - inoculation for, Rec. VII, 618.
 - notes, Rec. XI, 995; XII, 685.
 - of horses, serum treatment, Rec. XI, 594.
 - preventive inoculation, Rec. XI, 696.
 - treatment, Rec. XI, 796.
- Pleuropogon*—
- californicum*, notes, Rec. IV, 951.
 - refractum*, notes, Rec. IV, 951.
- Pleurostichidium*, n. gen., notes, Rec. V, 127.
- Pleurotus*—
- nidulans*, notes, Rec. IX, 960.
 - ostreatus*, notes, Rec. X, 551.
- Pluchionus timidus*, notes, Rec. III, 5

Plodia interpunctella—

in walnuts, Rec. VII, 695.
notes, Rec. VI, 315; VII, 515; VIII, 241, 610;
IX, 65; XII, 867.

Ploti, Russia, Experiment Station, reports, Rec.
XI, 197.

Plowing—

and harrowing, Rec. X, 847.

deep—

advantages and effect, Rec. VI, 283.
v. shallow for corn, Rec. X, 429.

fall, Rec. XI, 540.

fall—

effect on soil moisture, Rec. VII, 377.
for destroying insects, Rec. III, 610.
v. spring for corn, Rec. X, 429.

mechanics of, Rec. V, 261.

spring, Rec. VII, 164.

spring—

condition, Rec. IV, 957.
for destroying cotton bollworm, Rec. IV,
204.

subsoil, Rec. IX, 231.

traction engine for, Rec. V, 796.

under stubble for diseases of cereals, Rec. XI,
175.

with a steam plow, Rec. XI, 540.

Plowrightia—

morbosa. (See PLUM BLACK KNOT.)

ribesia, notes, Rec. XII, 262.

Plows—

American double and single, tests, Rec. IX,
295.

Borsig electric, Rec. XII, 1097.

dynamometer tests of, Rec. II, 376; V, 130.

electric, Rec. VI, 485, 848, 942; VII, 531; VIII, 91.

electric, and sugar manufactories, Rec. VIII,
352.

evolution, Rec. XII, 697.

French subsoil, Rec. XI, 526.

gang, drawn by traction engine, test, Rec. V,
796.

steam—

cultivator, Rec. VI, 755.

in Finland, Rec. XI, 97.

France, Rec. XI, 540.

test, Rec. VIII, 91.

subsoil, French, Rec. XI, 526.

tests, Rec. V, 350; VI, 252, 755; VII, 954; X, 898,
1097; XII, 296.

universal, Rec. V, 130.

Plum—

and cherry sawfly, notes, Rec. VIII, 802.

aphis—

description and treatment, Rec. III, 889.
notes, Rec. III, 230; IX, 668; X, 164, 766.
remedies, Rec. XI, 1064.

apricot, notes, Rec. IV, 916.

aspidiotus, new, in Illinois, Rec. VI, 1003.

bark louse, Rec. VI, 313.

black knot—

analyses, Rec. IV, 44.
maturation of spores, Rec. XII, 657.
notes, Rec. I, 83; II, 482, 501, 606; III, 42,
127, 160, 172, 308, 313, 403, 479, 720, 846,
871, 878; IV, 50, 55, 334, 658, 836, 837; V,
61, 193, 194, 309, 498, 1031; VI, 560, 909,
998, 1000; VII, 311, 875; IX, 753, 762, 959;
X, 453; XI, 246; XII, 767.

Plum—Continued.

black knot—continued.

treatment, Rec. I, 83, 225; II, 409, 448, 501,
606; III, 846, 864, 865, 878; V, 309; VIII,
318; IX, 764.

blight, notes, Rec. V, 194; XI, 246.

borer, notes, Rec. III, 657.

brown rot. (See PLUM ROT.)

catocala, notes, Rec. III, 889.

cureulio—

experiments for repression, Bul. 2, II, 118.

experiments in rearing, Rec. I, 41.

injury to fruit from, Rec. II, 103.

insecticides, Rec. I, 227; III, 864.

notes, Bul. 2, I, 179; Bul. 2, II, 58, 118;

Rec. I, 22, 45; II, 64, 103, 269, 279, 290,

328, 654, 659; III, 46, 54, 175, 176, 198, 298,

309, 313, 792; IV, 204, 830; V, 498; VI, 567,

654, 899; VII, 42, 126, 230, 316, 593, 792;

VIII, 702, 807, 999; IX, 151, 371, 662, 856,

959; X, 62, 66, 369, 458; XI, 66, 173, 863, 952,

955, 1064; XII, 68, 468, 869.

on apples, Rec. V, 937.

parasites, Rec. V, 101.

remedies, Bul. 2, I, 101, 170; Bul. 2, II,

118; Rec. I, 138, 227, 290; II, 64, 103, 280,

290, 495, 599; III, 97, 878, 889; IV, 57, 417,

828; V, 402, 593; VI, 647; IX, 371, 559, 647;

X, 370.

disease, notes, Rec. XII, 654.

diseases in the Hudson Valley, Rec. XII, 155.

flower buds as affected by cold, Rec. X, 755.

fly, notes, Rec. VIII, 809.

foliage, injuries by arsenites, Rec. II, 215, 216.

fruit mold. (See PLUM ROT.)

fruit rot. (See PLUM ROT.)

gouger—

notes, Rec. II, 104, 269; IX, 151; X, 369;
XI, 1064.

parasite of, Rec. II, 104.

remedies, Rec. II, 104.

ground, notes, Rec. X, 343, 542.

gummosis, Rec. IX, 762.

June drop, causes, Rec. XII, 238.

leaf beetle, notes, Rec. XI, 366.

leaf blight—

fungicides for, Rec. III, 864.

notes, Rec. III, 810; VI, 558, 899.

treatment, Rec. IV, 500, 955; VI, 302, 1001.

leaf curl, Rec. VI, 554.

leaf curl, treatment, Rec. IX, 569.

leaf fungus, notes, Rec. II, 291, 482.

leaf spot—

disease, notes, Rec. V, 194, 629.

fungicide for, Rec. III, 10.

notes, Rec. VIII, 139, 411.

treatment, Rec. VII, 138; IX, 148, 149; X,
265.

mildew, notes, Rec. V, 194; IX, 762.

mold, notes, Rec. VI, 909.

new scale insect, Rec. VI, 653.

parasitic diseases, Rec. XI, 949.

plant lice attacking, Rec. X, 467.

pockets—

notes, Rec. III, 871; V, 194, 498; VI, 554;
VIII, 318; IX, 762; XI, 246.

treatment, Rec. III, 878.

powdery mildew, notes, Rec. XI, 246.

ripe rot, notes, Rec. VIII, 63.

Plum—Continued.

rosette, notes, Rec. V, 498; XI, 369.

rot—

notes, Rec. II, 291; IV, 471, 658; V, 498, 629, 876; VI, 311, 899; VII, 138, 141; IX, 762.
treatment, Rec. III, 864; V, 876; IX, 457, 647, 959; X, 871.

(See also MONILIA FRUCTIGENA.)

rust—

notes, Rec. III, 217; V, 498; VI, 558.
treatment, Bul. 2, I, 188; Rec. I, 169; II, 32.

sand, Rec. XI, 498.

sawfly, notes, Rec. IX, 1065.

scab, notes, Rec. V, 989; IX, 762.

scale—

Howard's, Rec. VIII, 611.
insect on, Rec. VI, 152.
kerosene emulsion for, Rec. VI, 1004; VIII, 143; IX, 71.
new, from Oregon, Rec. VIII, 321.
New York, Rec. VIII, 320, 906; XII, 469.
notes, Rec. VI, 152, 1004; VII, 514, 696, 790; VIII, 142, 613, 906, 1002; IX, 71, 662, 967; X, 766, 1067.

shot-hole disease, notes, Rec. V, 498.

shot-hole effect, Rec. XI, 757.

shot-hole fungus, Rec. IX, 762.

shot-hole fungus—

notes, Rec. IV, 837.
treatment, Rec. III, 621; VI, 646.

sphinx—

parasites, Rec. X, 867.
remedies, Rec. X, 867.

stoneless, Rec. X, 440.

tree canker, Rec. IX, 761.

tree, Miobolan, variegated foliage in, Rec. V, 1099.

trees—

affected by *Xyleborus dispar*, Rec. XI, 762.
attacked by Scolytid beetles, Rec. XI, 871.
new insect on, Bul. 2, I, 154.
pruning, Rec. X, 437.
treatment for lichens, Rec. XI, 321.

twig gall, notes, Rec. VII, 180, 517, 878.

webworm, notes, Rec. IX, 856.

wood—

ash analyses, Rec. X, 232.
diseased, analyses, Rec. IV, 44.
sound, analyses, Rec. IV, 44.

Plume moth—

gartered, notes, Rec. II, 654.
raspberry, notes, Rec. IV, 839.

Plums— (See also PRUNUS.)

American, varieties, Rec. VIII, 231.
analyses, Rec. II, 103; IV, 918; X, 255, 754.
and cherries, botany, Rec. X, 640.
as affected by unusual cold, Rec. XI, 1041.
blossoming periods, Rec. IX, 839; X, 1042; XI, 245, 348.
bud development, Rec. XI, 851.
California, analyses, Rec. VIII, 691.
classification of varieties, Rec. IV, 162; IX, 352, 839.
combined insecticides and fungicides for, Rec. II, 408.
crossing, limits, Rec. XI, 48.

Plums—Continued.

cross-fertilization by bees, Rec. X, 871.

cross-pollination, Rec. XI, 599.

culture, Rec. IX, 1053; X, 45, 640, 854; XII, 240.

culture—

experiments, Rec. IV, 253.
in England, Rec. XI, 937.
Kansas, Rec. XII, 853.
Michigan, Rec. VII, 960.
Missouri, Rec. VII, 405.
pots, Rec. XII, 853.

European—

types, Rec. XII, 239.
varieties, Rec. X, 436.

fertilizing—

constituents, Rec. IV, 921.
ingredients removed from soil, Rec. II, 272.

flower development, Rec. XII, 22.

flowering and fertilization, Rec. VI, 143; VIII, 309; IX, 559.

forcing, Rec. XI, 352.

forcing under glass, Rec. XII, 853.

grafting, Rec. III, 589; X, 351, 355.

green gage, Rec. X, 753.

growing in high latitudes, Rec. XII, 548.

hardiness, Rec. XI, 347.

hardiness of buds, Rec. X, 152.

hybrid—

studies, Rec. XI, 47, 352.
varieties, Rec. XII, 151, 239.

in cold storage, Rec. V, 909.

injury by freeze of 1898-99, Rec. XII, 244.

insecticides and fungicides for, Rec. III, 23.

insects—

affecting, Rec. VII, 881.
and the pollination of, Rec. XI, 348.

Japanese, Rec. VIII, 51, 313; IX, 561, 950, 1053; X, 640.

Japanese—

culture, Rec. IX, 647.
leaf curl, Rec. VIII, 411.
notes, Rec. VI, 820; X, 640; XII, 953.
shot-hole effect, Rec. XI, 165.
variation in same variety, Rec. XI, 937.
varieties, Rec. III, 386; V, 983; VI, 53; X, 436; XI, 50, 1045.

leaf-footed bug attacking, Rec. VI, 564.

Myrobalan stocks for, Rec. II, 218.

native—

culture, Rec. VI, 424.
flowering and fertilization, Rec. VIII, 309; IX, 559.
in Michigan, Rec. VII, 305; VIII, 889.
new varieties, Rec. XII, 450.
notes, Rec. X, 547, 962; XI, 1047; XII, 945.
pollination, Rec. VIII, 598; IX, 837; XI, 347, 348; XII, 238.
propagation, Rec. XI, 1048.
pruning, Rec. X, 437.
relative hardiness of groups, Rec. XI, 930.
retarding blossoming period, Rec. XII, 548.
Rollingstone, Rec. II, 64.
root pruning, Rec. XI, 845.
Russian varieties, Bul. 2, II, 87; Rec. XI, 647.
seedling varieties, Rec. VI, 992; IX, 841.

Plums—Continued.

- self-sterile varieties, *Rec. XII*, 237.
 self-sterility, *Rec. IX*, 650; *XI*, 246.
 self-sterility, methods of testing, *Rec. XI*, 347.
 Simon, notes, *Rec. IV*, 916.
 spraying, *Rec. VIII*, 240.
 stocks for, *Rec. II*, 218; *XI*, 931.
 thinning, *Rec. X*, 848; *XII*, 753.
 varieties, *Bul. 2*, I, 21, 66, 183, 190; *Bul. 2*, II, 91, 135; *Rec. I*, 84, 229; *II*, 5, 9, 25, 147, 295, 355, 372, 395, 426, 556, 599, 642, 653, 668, 740; *III*, 85, 246, 282, 356, 360, 361, 403, 537, 685, 701, 722, 723; *IV*, 166, 352, 555, 556, 652, 653, 727, 918; *V*, 53, 190, 194, 299, 302, 496, 580, 585, 587, 681, 793, 870, 877, 982, 985; *VI*, 52, 54, 55, 142, 423, 424, 820, 899, 992; *VII*, 34, 214, 306, 405; *VIII*, 133, 134, 407, 701, 702, 791, 889; *IX*, 51, 244, 352, 353, 559, 647, 834, 841; *X*, 49, 254; *XI*, 152, 153, 246, 251, 252, 544, 844, 850, 851, 929, 1036, 1048; *XII*, 54, 237, 240, 557, 648, 853, 1044.
 Wayland group, *Rec. XI*, 351.
 wild—
 bud development, *Rec. XII*, 215.
 notes, *Rec. II*, 512; *III*, 522; *VIII*, 604.
 varieties, *Rec. I*, 42, 94.

Plusia—

- armula*, early phases, *Rec. X*, 770.
aurifera, notes, *Rec. VII*, 231.
brassicæ. (*See CABBAGE PLUSIA.*)
gamma, notes, *Rec. VI*, 65.
moneta, notes, *Rec. IX*, 965.
rogationis, notes, *Rec. IX*, 370.
simplex, notes, *Rec. VIII*, 905.
verticillata, notes, *Rec. IX*, 260.

Plutella—

- cruciferarum*. (*See DIAMOND-BACK MOTH.*)
maculata affecting cauliflower, *Rec. XI*, 1063.

Pneumobacillin as a diagnostic agent, *Rec. VII*, 156.

Pneumobacillus of Friedländer, studies, *Rec. VII*, 618.

Pneumobacillus liquefaciens bovis—

- notes, *Rec. VII*, 156.
 variations, *Rec. VI*, 245.

Pneumoenteritis. (*See HOG CHOLERA.*)

Pneumomycosis due to *Aspergillus fumigatus*, *Rec. XI*, 691.

Pneumonia—

- bacteria, effect on leucocytes, *Rec. XII*, 1084.
 bacteriological investigations, *Rec. IX*, 194.
 contagious, of horses, vaccination for, *Rec. XI*, 394.
 in cattle, *Rec. XII*, 892.
 in horses—
 investigation, *Rec. III*, 729.
 notes, *Rec. XII*, 790.
 studies, *Rec. XII*, 292.
 treatment, *Rec. XI*, 394.
 in pigs, *Rec. IX*, 390.
 poultry, treatment, *Rec. XII*, 1092.
 infectious—
 notes, *Rec. XI*, 794.
 of sheep, *Rec. X*, 497.
 notes, *Rec. XI*, 793; *XII*, 885.
 sporadic, in cattle, *Rec. IX*, 888.

Pneumothorax, studies, *Rec. VIII*, 1016.

Poa—

- acutiglumis*, n. sp., notes, *Rec. XI*, 28.
alpina—
 analyses, *Rec. IV*, 769, 770.
 notes, *Rec. II*, 320; *IV*, 771.
alsodes, notes, *Rec. II*, 320.
americana, notes, *Rec. VI*, 404.
andina, notes, *Rec. II*, 320.
annua, notes, *Rec. III*, 598; *X*, 244.
aquatica, notes, *Rec. I*, 282.
arachnifera. (*See TEXAS BLUE GRASS.*)
arctica, notes, *Rec. II*, 321; *IV*, 951.
argentea, notes, *Rec. IV*, 951.
arida, notes, *Rec. VI*, 404.
atropurpurea, notes, *Rec. X*, 516.
bolanderi, notes, *Rec. IV*, 951.
brevipaniculata, n. sp., notes, *Rec. XI*, 28.
caesia, notes, *Rec. II*, 320.
capillaris, notes, *Rec. X*, 516.
capillarifolia, n. sp., notes, *Rec. XI*, 28.
chapmanniana, notes, *Rec. V*, 741.
compressa—
 analyses, *Rec. VIII*, 810.
 notes, *Rec. I*, 282; *II*, 238, 320, 597, 600; *IV*, 925; *VII*, 384.
 (*See also BLUE GRASS, ENGLISH.*)
confinis, notes, *Rec. IV*, 951.
curtifolia, n. sp., notes, *Rec. XI*, 709.
douglasii, notes, *Rec. IV*, 951.
eatoni, notes, *Rec. II*, 321.
epilis, n. sp., notes, *Rec. XI*, 28.
fendleriana—
 and its allies, *Rec. XI*, 23.
 notes, *Rec. IV*, 951.
flexuosa occidentalis, notes, *Rec. II*, 320.
glumaris, notes, *Rec. IV*, 951.
hanseni, notes, *Rec. X*, 516.
howellii, notes, *Rec. IV*, 951.
incurva, n. sp., notes, *Rec. XI*, 28.
invaginata, n. sp., notes, *Rec. XI*, 28.
juncifolia, notes, *Rec. X*, 516.
kelloggii, notes, *Rec. IV*, 951.
lævis, notes, *Rec. II*, 320.
laxa, notes, *Rec. II*, 320.
leckenbyi—
 notes, *Rec. XI*, 423.
 n. sp., notes, *Rec. XI*, 28.
leibergii, notes, *Rec. IX*, 328.
limosa, n. sp., notes, *Rec. XI*, 28.
longiligula, n. sp., notes, *Rec. XI*, 28.
longipedunculata, notes, *Rec. X*, 516.
macrantha, notes, *Rec. IV*, 951; *XI*, 423.
nemoralis, notes, *Rec. I*, 282; *II*, 632, 633; *III*, 29, 51; *V*, 910; *VI*, 97, 404.
 (*See also MEADOW GRASS, WOOD.*)
nervata, notes, *Rec. VI*, 404.
nervosa, notes, *Rec. IV*, 951.
palustris, notes, *Rec. VI*, 404.
planifolia, n. sp., notes, *Rec. XI*, 28.
pratensis. (*See KENTUCKY BLUE GRASS.*)
pulchella major, notes, *Rec. IV*, 951.
purpurascens, notes, *Rec. IV*, 951.
saxatilis, n. sp., notes, *Rec. XI*, 28.
serotina, notes, *Rec. I*, 282; *II*, 320, 329, 601; *III*, 29.
 (*See also MEADOW GRASS, FOWL.*)

Poa—Continued.

- syvestris*, notes, Rec. II, 321.
- tenerrima*, n. sp., notes, Rec. XI, 28.
- tenuifolia*, notes, Rec. II, 321.
- thurberiana*, notes, Rec. IV, 951.
- trivialis*, notes, Rec. I, 282; II, 601, 632; VI, 97; X, 244.

(See also MEADOW GRASS, ROUGH.)

- turneri*, notes, Rec. IX, 328.
- unilateralis*, notes, Rec. IV, 951.
- wyomingensis*, n. sp., notes, Rec. XI, 319.

Poa, annual, culture experiments, Rec. X, 244.

Pochazia australis, notes, Rec. XII, 367.

Pocket gopher—

- fleas, Rec. IX, 254.
- louse of, Rec. II, 609.
- notes, Rec. II, 258; VII, 68.

Pocket mice of North America, Rec. I, 109.

Pod—

bearing plants, location of kernels, Rec. III, 925.

pea, edible, notes, Rec. XII, 936.

Podagrion mantis, notes, Rec. III, 811.

Podaxon mexicana, notes, Rec. IV, 956.

Podisus—

placidus, notes, Rec. IX, 370, 675.

spinosus—

as a parasite of the gypsy moth, Rec. III, 870.

notes, Rec. XI, 115, 116, 319.

Podisus, species in the United States, Rec. X, 570.

Podophyllum stamens, pistillodia of, Rec. VI, 115.

Podoscesia syringæ, notes, Rec. XII, 265.

Podosphera—

oxyecanthæ—

notes, Rec. II, 32; VI, 546, 1000; XI, 246.

treatment, Rec. III, 878; IV, 955.

tridactyla, notes, Rec. IV, 50; V, 194.

Podospora minor, notes, Rec. VIII, 867.

Podilocapsus lineatus, notes, Bul. 2, II, 119; Rec.

III, 291; V, 406; VIII, 146; X, 168; XI, 863.

Podilococcus socotranus, phosphorescent organs, Rec. XII, 167.

Pacilochloa minuta, notes, Rec. X, 273.

Pacilocystus diffusus, notes, Rec. XI, 472.

Pogonip, notes, Rec. XII, 1015.

Poincianna, royal, notes, Rec. VI, 636.

Poison—

apparatus in hymenopterous insects, Rec. V, 1100.

hemlock, notes, Rec. VII, 779; X, 516; XI, 287.

in cotton seed and cotton cake, Rec. VIII, 155.

Euphorbias, Rec. V, 922.

ivy—

notes, Rec. III, 521; IV, 47; IX, 330, 527; X, 516.

root galls on, Rec. VI, 440.

oak, notes, Rec. IV, 47; IX, 527; X, 516.

of honey bees, Rec. X, 765.

sumac, notes, Rec. IX, 527; X, 516.

Poisoning—

by *Amanita pantherina*, Rec. V, 820; VII, 504.

cashew (mesquite), Rec. IX, 1091.

castor-bean cakes, Rec. V, 914.

coffee, Rec. VII, 616.

concentrated feeding stuffs, Rec. V, 665.

copper on grape leaves, Rec. IV, 223.

Poisoning—Continued.

by cowbane, Rec. VII, 588.

Kafir corn, Rec. X, 694.

minerals and plants, Rec. XII, 885.

mushrooms, Rec. V, 1097; IX, 649; X, 47, 417.

nitrate of soda, Rec. VII, 66, 526.

oxalic acid, Rec. IX, 475.

parsnips, Rec. VII, 131, 589.

potatoes, Rec. VIII, 332; IX, 390.

Primula obconica, Rec. VII, 749.

purple vetch, Rec. VII, 252.

rape-seed cake, Rec. IX, 994.

rhus, Rec. VII, 564.

water; from lead pipes, Rec. V, 255.

wild-cherry leaves, Rec. XI, 599.

yew leaves, Rec. IV, 615; V, 1033.

calves by cotton-seed meal, Rec. V, 825; VII, 252.

cattle—

by acorns, Rec. VI, 472.

cotton-seed meal, Rec. V, 733, 825.

Lathyrus clymeneum, Rec. VII, 526.

Lathyrus sativus seed, Rec. VI, 472.

nitrate of potash, Rec. VII, 250; X, 794.

oil cakes, Rec. V, 733.

fish ponds, Rec. VII, 804.

hogs by feeding cockle seed, Rec. V, 733, 813.

Poisonous plants. (See PLANTS, POISONOUS.)

Poisonous properties of juniper berries, Rec. VIII, 290.

Poisons—

effect—

and detection, Rec. VII, 271.

on plants, Rec. VII, 564.

for insects, Rec. VI, 152.

in lichens, Rec. V, 252.

mineral, influence on lactic fermentation, Rec. V, 734.

Poke root, notes, Rec. VIII, 892.

Poke weed, analyses, Rec. III, 629.

Poker plant, notes, Rec. IV, 654.

Poland, agricultural literature, Rec. XI, 198.

Polar expedition—

International, 1882-83, Rec. VII, 281.

Wellman, Rec. X, 419.

Polarimeter—

for examining essential oils, Rec. VII, 745.

yellow light for, Rec. IX, 418.

Polariscope—

correction of readings for temperature, Rec. XI, 311.

modified, Rec. VII, 835.

quartz scale, new, Rec. XI, 420.

Polarization—

apparatus—

for high and low temperatures, Rec. VII, 559.

modified form, Rec. VII, 463.

new, Rec. XI, 214.

of sugar cane, Rec. VI, 273.

Polarized light for examination of butter, Rec. VI, 274.

"Pole burn" of tobacco, cause and prevention, Rec. III, 773.

Pole sweat, cause, Rec. V, 879.

Polenta, digestibility, Rec. X, 180.

Polistes—*canadensis*, notes, Rec. IX, 574.*lineata*, notes, Rec. XII, 264.

Poll evil of horses, studies, Rec. XII, 292.

Polled—

Angus cattle, pedigrees, Rec. II, 4.

breeds of cattle, Rec. VII, 64.

cattle, origin, Rec. X, 184.

Durham cattle, notes, Rec. XI, 983.

Pollen—

as affected by rain, Rec. I, 134.

biology, Rec. VII, 838; VIII, 108, 670; X, 416, 1013; XI, 319.

cells, Rec. VII, 372.

coloring matter, Rec. IV, 448.

effect on—

form of fruit, Rec. VIII, 205.

ripening season of strawberries, Rec. X, 755.

foreign, secondary effect, Rec. V, 659.

grain, germination, Rec. VI, 115.

immediate effect in maize, Rec. XII, 717.

morphology, Rec. X, 416.

of Papaveraceæ, Rec. V, 650.

physiology, with reference to motion of pollen tubes, Rec. V, 650.

substitutes for bees, Rec. XII, 660.

tube nutrition, Rec. VI, 115; VII, 838.

tubes of gymnosperms, Rec. IV, 870.

Pollenia rudis, notes, Rec. IX, 63.

Pollination— (See also CROSS FERTILIZATION.)

effect of rainfall, Rec. VI, 46.

experiments with olives, Rec. VIII, 691; XII, 946.

immediate effect, Rec. V, 729.

of cereals, Rec. VI, 140.

conifers, Rec. IX, 922.

corn, Rec. XI, 706.

Cucurbita, Rec. XI, 220.

flowers, Rec. XI, 909.

fruits by bees, Rec. IV, 595; XII, 367.

grapes, Rec. VII, 770; VIII, 601.

muskmelons, Rec. XI, 707.

orchard fruits, Rec. XII, 237.

pear flowers, Rec. VI, 47.

plants, Rec. IX, 139.

plums, Rec. VIII, 598; IX, 837; XI, 347, 348; XII, 238.

pomaceous fruits, Rec. XI, 447.

strawberries, Rec. IX, 139, 245.

tomatoes, Rec. IX, 244.

yucca by means of insects, Rec. V, 327.

physiology of, Rec. V, 650.

secondary effect, Rec. IV, 544.

studies, Rec. X, 152.

Pollinia—*costæ*, in California, Rec. VI, 564.*fulva*, notes, Rec. X, 416.*Polorus ratzeburgi*, notes, Rec. IX, 368.

Poltava, Russia, Experiment Station, Rec. X, 798.

Polyactis—*cana*, notes, Rec. VIII, 507.

sp., notes, Rec. III, 162.

Polyarthritis of calves, Rec. XII, 193.

Polycaon confertus, notes, Rec. II, 81; III, 453; IX, 767.*Polycarpa spirostylis*, copper content, Rec. XI, 1012.*Polychrosis botrana*, notes, Rec. XI, 367.*Polydrusus micans*, notes, Rec. VIII, 70.

Polyembryony—

in *Opuntia vulgaris*, Rec. X, 23.

recent additions, Rec. VII, 467.

Polyergus rufescens, notes, Rec. XII, 865.*Polygonatum* parasite, description, Rec. XII, 768.*Polygonia*—*comma*, notes, Rec. IX, 668.*interrogationis*, notes, Rec. IX, 668.*progne*, notes, Rec. VIII, 69.*Polygonum*—*amplexicaule*, notes, Rec. VII, 407.*aviculare*—

notes, Rec. III, 598; V, 497; VI, 404; IX, 957.

root system, Rec. IV, 46.

bistorta, notes, Rec. IX, 956.*convolvulus*—

notes, Rec. IV, 699; V, 913.

root system, Rec. IV, 46.

cuspidatum—

as a forage plant, Rec. V, 346.

notes, Rec. IV, 654; V, 820; VII, 407; VIII, 491.

dumetorum—

root system, Rec. IV, 46.

scandens, analyses, Rec. III, 629.*erectum*, notes, Rec. VI, 404.*fagopyrum*, notes, Rec. V, 522.*hydropiper*, notes, Rec. III, 308.*lepathifolium*, notes, Rec. V, 913.*muhlenbergii*, notes, Rec. X, 1048.*pennsylvanicum*—

notes, Rec. V, 399.

root system, Rec. IV, 46.

ramosissimum, notes, Rec. X, 343.*ridulum*, notes, Rec. V, 659.*sachalinense*. (See SACHALINE.)*sieboldtii*, notes, Rec. VI, 215.

sp., notes, Rec. V, 970.

Polygraphus rufipennis, notes, Rec. V, 311; XI, 764.*Polyides rotundus*—

analysis, Rec. IV, 715.

notes, Rec. IV, 715.

Polymorphism—

of bacteria, Rec. XI, 125.

Sporotrichum, Rec. VI, 1001; VIII, 995.*Polypheumus* silkworm, notes, Rec. II, 115.*Polypogon monspeliensis*, notes, Rec. II, 321.*Polyporus*—*abietinus*, notes, Rec. IX, 960.*betulinus*, notes, Rec. XII, 573.*caesiis*, notes, Rec. IX, 960.*carneus*, notes, Rec. XII, 766.*cryptopus*, notes, Rec. VII, 888.*decurrens*, notes, Rec. VIII, 671.*carlei*, notes, Rec. VIII, 671.*flavosquamosus*, notes, Rec. VIII, 671.*fulvus oleæ*, notes, Rec. VI, 910.*hartigii*, notes, Rec. X, 653.*ignarius fulvus*, notes, Rec. XII, 254.*irregularis*, notes, Rec. VIII, 671.*juniperinus*, notes, Rec. XII, 766.*melix*, notes, Rec. VIII, 671.*mylittæ*, notes, Rec. V, 820.*obliquus*, notes, Rec. XII, 857.*retipes*, notes, Rec. VIII, 671.*sublutens*, notes, Rec. VIII, 867.

Polyporus—Continued.*sulphureus*—

notes, Rec. IX, 960; XII, 467, 573.

on oaks, Rec. XII, 958.

soluble ferments, Rec. VII, 468.

ulmarius, notes, Rec. XI, 467.*versicolor*, notes, Rec. IX, 960.*Polyporus*—

cell membrane, Rec. VI, 195.

of olives, Rec. VI, 910.

Polysphincta sp., notes, Rec. II, 116.*Polythrincium trifolii*, notes, Rec. IV, 50; X, 446; XII, 572.*Pomaceæ*—

botany and geographical distribution, Rec. VIII, 957; IX, 227.

structure of wood, Rec. VIII, 28; X, 644.

Pomatostomus spp., notes, Rec. XII, 424.

Pomegranate, vegetable, Rec. XII, 553.

Pomegranates—

analyses, Rec. IX, 1054.

notes, Rec. X, 547.

varieties, Rec. V, 190, 496, 586.

Pomelos—

analyses, Rec. VI, 815; VIII, 692; X, 255.

budding, Rec. XII, 648.

medicinal value, Rec. VI, 728.

notes, Rec. VII, 868; VIII, 889.

varieties, Rec. V, 396; VIII, 407; IX, 51.

Pomological Society, American—

fruit catalogue, Rec. XI, 544.

meeting, Rec. III, 202; XI, 398.

Pomology—

Danish, handbook, Rec. VII, 504.

school at Florence, Italy, Rec. IV, 330.

Swedish, handbook, Rec. IX, 650.

Pompilus viaticus, notes, Rec. XII, 469.*Pompon dahlia*s, varieties, Rec. VIII, 986.*Pond*—

and aqueduct water, analyses, Rec. VI, 881.

cleanings as a fertilizer, Rec. IX, 638.

mud, analyses, Rec. IX, 825.

pine, Rec. IX, 842.

Ponds—

fish culture in, Rec. V, 823.

in landscape gardening, Rec. XI, 650.

Pontederia cordata, analyses, Rec. V, 64, 65.*Pop corn*—

analyses, Rec. II, 117; III, 16.

classification of varieties, Rec. II, 562.

culture experiments, Rec. VII, 120.

varieties, Rec. I, 122, 254; II, 562, 669; III, 703.

Poplar—

anthracnose, notes, Rec. VIII, 899.

balsam, notes, Rec. III, 521; VI, 425.

birch-leaved, notes, Rec. IV, 655.

black, notes, Rec. VI, 425.

bolleana, notes, Rec. IV, 655.

borer, notes, Rec. I, 12, 232.

Canada, in Belgium, Rec. VIII, 315.

canker, notes, Rec. X, 59; XI, 59.

Carolina—

notes, Rec. XII, 1049.

plantation in Pennsylvania, Rec. XII, 651.

Certinensis, notes, Rec. VI, 425.

defoliator, notes, Rec. V, 884.

disease in France, Rec. VIII, 142.

evergreen, in Paris, Rec. VII, 775.

Poplar—Continued.

foliage, injuries by arsenites, Rec. II, 215, 216.

girdler, notes, Rec. I, 232.

golden, notes, Rec. IV, 655.

hawk moth, notes, Rec. X, 164.

in landscape gardening, Rec. VI, 425.

leaf beetle, notes, Rec. IV, 417.

leaf gall louse, notes, Rec. X, 164.

leaves as a feeding stuff, Rec. XI, 576.

Lombardy, notes, Rec. IV, 655; VI, 425.

Russian—

experiments in growing from cuttings,

Bul. 2, II, 88.

notes, Rec. II, 512, 741; IV, 655; VI, 426;

VII, 586; VIII, 604; XI, 852, 853, 855.

varieties, Bul. 2, II, 87; Rec. I, 315.

rust—

notes, Rec. IV, 50; VI, 61.

treatment, Rec. V, 309.

sawdust as litter, Rec. V, 144.

silver, notes, Rec. IV, 655.

trembling-leaved, notes, Rec. XII, 559.

tulip, notes, Rec. IV, 655.

white, notes, Rec. IV, 655; VI, 425.

yellow, notes, Rec. VI, 425.

Poplars—

cultivated, Rec. VIII, 314.

culture, Rec. I, 232.

growth from cuttings, Rec. I, 93.

insects affecting, Rec. I, 232.

notes, Rec. IV, 829; V, 884; VI, 427; VII, 134.

species, Rec. II, 392.

Poppelsdorf, Germany, Experiment Station, report, Rec. III, 263.*Popple*, notes, Rec. VI, 425.*Poppy*—

cake—

digestion experiments, Rec. V, 1032.

for sheep, Rec. III, 572.

capsules, nitrogen in, Rec. VI, 195.

Mexican, notes, Rec. VI, 224; VII, 407.

Populus—*alba*—*bolleana*, notes, Rec. VI, 425; XII, 153.*canescens*, notes, Rec. VI, 425.*nivea*, notes, Rec. VI, 425; XII, 153.

notes, Rec. IV, 655.

angulata, rate of growth, Rec. XII, 1048.*angustifolia*, notes, Rec. III, 521; VI, 425; XI, 1051.*balsamifera*—*candicans*, notes, Rec. III, 521.*intermedia*, notes, Rec. VI, 425; XII, 153.*latifolia*, notes, Rec. VI, 425.

notes, Rec. XI, 1051.

viminalis, notes, Rec. VI, 425.*bercolensis*, notes, Rec. VI, 426; XI, 852, 853.*betulifolia*, notes, Rec. IV, 655.*candicans*, notes, Rec. VI, 425.*certinensis*—

notes, Bul. 2, II, 87; Rec. I, 315; II, 512; IV, 655; VIII, 604.

rate of growth, Rec. IV, 45.

deltoides—

notes, Rec. I, 253; II, 741; III, 521; IV, 655; VI, 425; VIII, 604; XI, 853; XII, 153, 1049.

plantations in Pennsylvania, Rec. XII, 651.

(See also COTTONWOOD.)

Populus—Continued.

- fastigiata*. (See *POPULUS NIGRA ITALICA*.)
grandidentata, notes, Rec. VI, 425.
laurifolia, notes, Rec. IV, 655; VI, 425; XII, 153.
monilifera. (See *POPULUS DELTOIDES*.)
nigra elegans, notes, Rec. VI, 425.
nigra italica—
 notes, Rec. IV, 655; VI, 425; VIII, 604; XII, 153.
 rate of growth, Rec. IV, 45; XII, 1048.
nolesler, rate of growth, Rec. IV, 45.
petrowskiana, notes, Rec. XI, 853.
pyramidalis. (See *POPULUS NIGRA ITALICA*.)
sibirica pyramidalis, notes, Rec. IV, 655.
sieboldi, notes, Rec. VI, 425.
simonii, notes, Rec. VI, 425.
 spp., notes, Rec. VII, 134.
tremula. (See *POPULUS TREMULOIDES*.)
tremuloides—
 notes, Rec. III, 521; VI, 425; VIII, 108; XII, 153.
 polymorphism, Rec. VII, 838.
wobsky, notes, Rec. IV, 655.
 Porcelain, passage of solutions of casein through, Rec. IV, 870.
 Porcupine grass—
 analyses, Rec. VI, 403.
 notes, Rec. I, 138; IV, 699.
Poria subviolacea, notes, Rec. VIII, 867.
 Pork— (See also PIGS.)
 analyses, Rec. IV, 59; XII, 674.
 analyses of fat, Rec. XII, 581.
 as affected by pregnancy of swine, Rec. IX, 176.
 chemical studies, Rec. XII, 674.
 composition as affected by food, Rec. X, 1086; XI, 70; XII, 582, 588.
 from different breeds, comparison, Rec. X, 878.
 production—
 cost, Bul. 2, I, 79; Rec. II, 197, 497, 498; III, 157, 478; IV, 68; XI, 569.
 feeding for, Rec. I, 7.
 for cotton farmers, Rec. X, 1089.
 in Kansas, Rec. X, 584.
 study, Rec. XII, 673.
 raising, profit in, Rec. III, 132.
 soft, production, Rec. VII, 609; VIII, 921; XI, 670.
 trichina-infested, feeding experiments, Rec. XI, 797.
 Porosity of woody stems, Rec. VII, 563.
Porphyrophora polonica, notes, Rec. XI, 958
 Port wine grapes, notes, Rec. II, 629.
Porthesia—
auriflua, notes, Rec. VIII, 911; XI, 766, 870.
chrysorrhæa, fungus disease, Rec. IX, 457; XI, 67.
Porthetria dispar. (See *GYPSY MOTH*.)
 Porto Rico—
 agricultural—
 conditions, Rec. XI, 497, 536.
 products, Rec. XII, 795.
 climate, Rec. XI, 30.
 trade, Rec. X, 197.
 Portugal, agricultural associations in, proceedings, Rec. XI, 296.

Portulaca—*oleracea*—

- analyses, Rec. X, 275; XI, 1008.
 notes, Rec. II, 491; II., 308, 598; X, 244, 343.
 root system, Rec. IV, 46.
 studies, Rec. XI, 1068.
pilosa, notes, Rec. X, 343.
 Posen, Germany, Experiment Station, Rec. III, 263; VI, 943; VII, 631.
 Post-graduate study at Washington, Rec. XI, 699.
 Post oak coccid, notes, Rec. IV, 204.
 Postal telegraph clock and weather bulletin, Rec. IX, 531.
 Posts—
 preservation, Rec. VIII, 351; XII, 754.
 white pine, notes, Rec. VI, 252.
 Pot—
 culture, Wagner method, Rec. VII, 77.
 experiments—
 conduct, Rec. V, 380.
 in Germany, Rec. III, 208, 275, 342.
 Spain, Rec. IV, 875.
 plants, fertilizer experiments, Rec. VIII, 598.
v. field experiments, Rec. VII, 75.
 field experiments with crude phosphates, Rec. V, 819.
 plat experiments, Rec. II, 269.
 Potash— (See also KAINIT, MURIATE OF POTASH, etc.)
 agricultural value, Rec. IX, 37.
 and barnyard manure for corn, Rec. VII, 121.
 and bone—
 analyses, Rec. IX, 538; XI, 719.
 as fertilizer for orchards, Rec. VI, 549.
 cost and valuation, Bul. 2, I, 40.
 and fish, analyses, Bul. 2, I, 40.
 and magnesia carbonate—
 analyses, Rec. IV, 912; IX, 1024; XII, 717.
 for tobacco, Rec. V, 865.
 and magnesia phosphate, analyses, Rec. X, 1031.
 and magnesia salts, analyses, Rec. II, 374.
 and magnesia sulphate—
 analyses, Rec. II, 481; III, 8, 168, 764; IV, 25, 902; V, 288; VI, 522, 797; VII, 195, 294, 854; VIII, 389; IX, 934; X, 230, 426, 1033; XI, 719; XII, 931, 933.
 for tobacco, Rec. IV, 908, 909.
 and paying crops, compilation by German Kali works, Rec. II, 276, 296, 325, 571.
 and soda, determination, Rec. V, 126.
 apparatus, Geissler improved, Rec. XII, 717.
 as a fertilizer, Rec. I, 138; V, 853; VI, 630; VII, 572.
 a fertilizer, treatise, Rec. XII, 1026.
 bulb, new form, Rec. VIII, 668; X, 1005; XI, 313.
 cost, Bul. 2, I, 39; Rec. VIII, 115.
 deposits—
 at Arnstadt, Rec. VII, 293.
 in Hanover, Rec. VI, 713.
 determination, Rec. II, 90; III, 831; IV, 85, 117, 516, 585, 586, 731, 980; V, 473, 510, 538; VI, 105, 179, 370, 371, 503, 865, 867; VII, 88, 272, 743, 745; VIII, 24, 103, 195, 274, 457, 562; IX, 24, 26, 223, 335, 407, 416, 420; X, 310, 409, 412, 605, 820, 1004; XI, 109, 417, 507; XII, 18, 1004.

Potash—Continued.

determination—

- by Carnot method, Rec. VIII, 562.
- means of phosphomolybdic acid, Rec. XII, 713, 715.

- in crude salts, Rec. X, 19; XII, 714.
- cultivated soils, Rec. XII, 622.
- soil solution, Rec. VI, 183.

- Lindo-Gladding method, Rec. II, 290;
- IV, 516, 585, 586, 612; V, 385; X, 412.

- of perchlorate, Rec. X, 819.

- Stassfurt method, Rec. VII, 745; VIII, 24.
- without removal of iron, calcium, etc., Rec. X, 408.

effect on—

- chalk soils, Rec. V, 708.
- cultivated plants, Rec. V, 548.
- fungi, Rec. VII, 926.

excreted by—

- cows, Rec. V, 143.
- horses, Rec. V, 143.

fertilizers—

- comparison of different forms, Bul. 2, I, 118; Rec. I, 258; II, 147, 149; XII, 227.
- effect on beet sickness, Rec. X, 653.
- experiments, Rec. IV, 783.
- permanency of effect, Rec. VI, 202.

for barley, Rec. IX, 644, 1047.

- beans, Rec. V, 291.
- beets, Rec. X, 636.
- black rust of cotton, Rec. XI, 139.
- cabbage, Rec. V, 716.
- clover, Rec. VII, 121.
- corn, Rec. I, 61, 132; V, 291; VI, 542.
- lupines, Rec. VII, 674.
- meadows, Rec. X, 147.
- nematodes in the soil, Rec. VII, 316.
- peas, Rec. X, 636.
- plant growth, Rec. VI, 400.
- potatoes, Rec. I, 220, IV, 716; VIII, 399.
- root crops, Rec. IX, 644.
- sorghum, Rec. I, 132.
- sugar beets, Rec. V, 378; VI, 292; VII, 862.
- sugar cane, Rec. I, 65.
- sweet potatoes, Rec. I, 132.
- tobacco, Rec. II, 226; III, 188; IV, 716, 908; V, 256, 865; IX, 547.
- various crops, Rec. V, 1070; XII, 227.
- wheat, Rec. X, 623.

function in—

- agriculture, Rec. IX, 539.
- assimilation in plants, Rec. VIII, 670.

in barnyard manure, Rec. V, 141, 152, 387.

- cotton-seed meal, Rec. V, 289.
- cotton-seed meal, water-soluble, Rec. IV, 901.

- fertilizers, Bul. 2, I, 173; Rec. V, 777.

- potash salts, Rec. V, 473.

- soil water, studies, Rec. XII, 36.

- soils, Rec. V, 474, 902, 1009.

in soils—

- available, Rec. VIII, 113.
- conservation, Rec. X, 134.
- determination, Rec. V, 1009; VI, 23, 119, 183; X, 134, 514.
- of volcanic origin, Rec. X, 620.
- industry, Rec. X, 1034.

Potash—Continued.

- industry, future, Rec. XI, 230.

- insoluble, assimilation, Rec. VII, 938.

- of plants as affected by water content of soil, Rec. X, 1024.

- production from ashes of trees and grasses, Rec. X, 235.

- reagent for, Rec. XII, 20.

- refuse, analyses, Rec. IX, 339.

- relation of amounts in fertilizers and in crop, Rec. I, 62.

- required by cultivated plants, Rec. VII, 108.

requirements of—

- barley as affected by various factors, Rec. XI, 531.

- soil, experiments, Rec. X, 335.

salts—

- absorption by plants, Rec. X, 1013.
- absorptive power of soils for, Rec. II, 635.
- action in the soil, Rec. VI, 126.
- analyses, Bul. 2, I, 22, 173, 191; Rec. I, 15; II, 659; VIII, 239; IX, 538, 739.
- application, Rec. III, 750.
- assimilation, Rec. VIII, 765.
- as insecticides, Rec. II, 415; IV, 475.

salts, effect on—

- composition and yield of potatoes, Rec. X, 140; XII, 443.
- cotton, Rec. II, 643.
- nitrification, Rec. V, 1012.
- palatability of hay, Rec. VII, 497.
- root crops, Rec. VI, 808.
- soil mixture, Rec. VI, 61, 623.
- water consumption of plants, Rec. VIII, 765.

salts—

- fertilizing effects, Rec. III, 750, 831; VIII, 764; IX, 826.
- for beet nematodes, Rec. III, 750; IV, 615, 689, 970; V, 732; VI, 61.
- beet sickness, Rec. VII, 39.
- production and distribution, Rec. X, 136.
- production in Germany, Rec. VI, 517.
- Stassfurt, production in 1899, Rec. XII, 130.
- Stassfurt mines, Rec. XII, 934.
- Stassfurt, statistics, Rec. V, 128; XII, 737.
- transformation in the soil, Rec. XII, 429.
- use during summer, Rec. IX, 36.
- use in agriculture, Rec. X, 136.

solubility in soils as affected by fertilizers, Rec. XII, 623.

solution for pear-tree psylla, Rec. IV, 475.

- sources, Rec. V, 569; VII, 40; XII, 736.

- valuation, Rec. I, 131.

v. soda—

- as a fertilizer, Rec. VI, 27, 521; VIII, 579.
- in plants, Rec. XI, 35.

Potassio-platinic chlorid, reduction, Rec. IV, 782.

Potassium—

- compounds, poisonous effect on wheat, Rec. XII, 717.

- detection by sodium cobalt nitrite, Rec. XII, 516.

- determination, Rec. IX, 420.

Potassium acetate, effect on germination of seeds, Rec. V, 882.

Potassium bichromate—
 and anilin violet for determination of hydro-
 gen peroxid in green plants, *Rec. VI*, 615.
 as an insecticide, *Rec. II*, 319.
 for oat smut, *Rec. II*, 639.
 preservation of milk, *Rec. V*, 83, 123, 124,
 125, 1001.
 stinking smut of wheat, *Rec. III*, 226.
 wheat smut, *Rec. II*, 221.

Potassium bisulphite, influence on alcoholic fer-
 mentation, *Rec. V*, 618.

Potassium bitartrate in wines, *Rec. VIII*, 667; *IX*,
 521.

Potassium carbonate—
 analyses, *Rec. VI*, 287; *VII*, 854; *VIII*, 563; *IX*,
 919; *X*, 919; *XI*, 719, 917; *XII*, 131, 907, 931.
 and magnesia. (*See POTASH AND MAGNESIA*
CARBONATE.)
 effect on beet sickness, *Rec. X*, 266, 653.
 for tobacco, *Rec. IV*, 716, 908, 909; *V*, 865.
 in salt, determination, *Rec. X*, 20.
 influence on nitrification, *Rec. V*, 1012

Potassium chlorate—
 effect on yield of milk, *Rec. V*, 971.
 in mushrooms, *Rec. V*, 1097; *VI*, 49.

Potassium chlorid—
 absorptive power of soils for, *Rec. VI*, 121.
 effect in mixed fertilizers, *Rec. IX*, 338.
 effect on—
 lime resources of soil, *Rec. IX*, 339.
 solubility of lime in soils, *Rec. XII*, 623.
 for grapes, *Rec. V*, 1095.
 potatoes, *Rec. X*, 141.

Potassium chromate—
 and molybdic acid, reaction between, *Rec.*
VI, 190.
 as a milk preservative, *Rec. VIII*, 561.

Potassium cyanid—
 as an insecticide, *Rec. II*, 63; *X*, 470; *XI*, 174.
 effect on germination of seeds, *Rec. V*, 882.
 for rose chafers, *Rec. III*, 171.
 poisoning rabbits, *Rec. XII*, 423.

Potassium ferrocyanid and Bordeaux mixture,
 test, *Rec. VI*, 437; *VII*, 312.

Potassium hydrate for potato scab, *Rec. III*, 619.

Potassium hydroxid, iron in, *Rec. IV*, 984.

Potassium iodid—
 aqueous solution, *Rec. V*, 461.
 for actinomycosis, *Rec. IV*, 107, 758; *VI*, 470,
 471; *IX*, 391; *XI*, 193.
 milk fever, *Rec. XI*, 593.
 parturient apoplexy, *Rec. XI*, 192.
 intravenous injection, *Rec. XII*, 890.

Potassium nitrate—
 analyses, *Rec. III*, 764; *VI*, 272; *VII*, 854; *IX*,
 636, 917, 1024; *X*, 919; *XI*, 917; *XII*, 717, 907,
 931.
 determination of—
 nitrogen, *Rec. XI*, 705.
 perchlorate, *Rec. X*, 410.
 effect on—
 germination of seeds, *Rec. V*, 882.
 movement of soil water, *Rec. VII*, 567
 organic substances, *Rec. VII*, 17.
 soil moisture, *Rec. VII*, 567.
 for carnations, *Rec. III*, 290.
 from tobacco extracts, analyses, *Rec. VIII*,
 966.

Potassium nitrate—Continued.
 in Wyoming, *Rec. XII*, 934.
v. muriate of potash and nitrate of soda, *Rec.*
XII, 735.

Potassium perchlorate—
 effect on—
 plants, *Rec. XI*, 331; *XII*, 824, 1052.
 rye, *Rec. VIII*, 762; *X*, 235.
 experiments, *Rec. X*, 427.

Potassium permanganate—
 adhesiveness as a fungicide, *Rec. XII*, 658.
 and copper as a fungicide, *Rec. XI*, 166.
 as a fungicide, *Rec. XII*, 62, 574.
 effect on organic substances, *Rec. VII*, 17.
 for determination of organic matter, *Rec. VIII*,
 105.
 determination of potash, *Rec. X*, 820.
 determining availability of organic nitro-
 gen, *Rec. XI*, 721.
 grape mildew, *Rec. XII*, 262, 360, 464.
 hollyhock rust, *Rec. II*, 504; *VIII*, 412.
 oxidizing albuminoids, *Rec. VI*, 189.
 preserving milk, *Rec. V*, 124.
 standardization, *Rec. VII*, 653; *VIII*, 743.

Potassium phosphate—
 absorptive power of soils for, *Rec. VI*, 121.
 analyses, *Rec. IV*, 903; *V*, 861; *VI*, 287; *IX*,
 538; *XI*, 719.
 as a fertilizer, *Rec. V*, 225, 255, 421.
 double, and magnesia, analyses, *Rec. X*, 1031.
 for beets, *Rec. VII*, 670.
 manufacture, *Rec. VII*, 24.

Potassium sulphate— (*See also SULPHATE OF*
POTASH.)
 absorptive power of soils for, *Rec. VI*, 121.
 cost of potash from, *Bul. 2, I*, 39.
 for grapes, *Rec. V*, 1095.
 potato scab, *Rec. II*, 61; *III*, 619; *IV*, 926.
 in wines, *Rec. VII*, 18, 184.

Potassium sulphid—
 as a fungicide, *Rec. V*, 400, 629.
 effect on germination of—
 corn, *Rec. V*, 304.
 oats, *Rec. V*, 304.
 wheat, *Rec. V*, 304.
 for apple bitter rot, *Rec. I*, 169.
 apple scab, *Bul. 2, I*, 146.
 bean anthracnose, *Rec. IV*, 558.
 brown rot of stone fruits, *Rec. III*, 860.
 carnation blight, *Rec. IV*, 54.
 carnation rust, *Rec. VIII*, 996.
 celery blight, *Rec. IV*, 929.
 celery diseases, *Rec. IV*, 926.
 celery leaf blight, *Rec. V*, 878.
 corn smut, *Rec. III*, 287.
 cucumber mildew, *Rec. IV*, 49.
 fairy-ring fungus of carnation, *Rec. X*, 267.
 gooseberry mildew, *Bul. 2, I*, 145; *Rec. I*,
 169; *III*, 403; *IX*, 1061; *XI*, 946.
 grain rusts, *Rec. IV*, 955.
 grain smuts, *Rec. IV*, 50.
 grape mildew, *Rec. II*, 599; *VIII*, 898.
 grape powdery mildew, *Rec. III*, 781.
 Lima bean mildew, *Rec. V*, 878.
 oat and barley smut, *Rec. VIII*, 240.
 oat loose smut, *Rec. IX*, 446.
 oat smut, *Rec. II*, 639; *III*, 285; *V*, 308;
VI, 559.

Potassium sulphid—Continued.

- for peach mildew, Rec. VIII, 801.
- pear scab, Rec. II, 49, 322.
- potato scab, Rec. III, 619.
- rose mildew, Rec. VIII, 996.
- sorghum rust, Rec. III, 287.
- wheat rust, Rec. III, 286.
- wheat smut, Rec. II, 221; X, 633.
- preparation and use, Rec. VII, 231; VIII, 54; X, 60; XI, 262; XII, 975.
- with lime as a fungicide, Rec. II, 221.

Potassium sulpho-carbonate as an insecticide, Rec. V, 531.

Potassium tartrate acid for titrating normal solutions, Rec. V, 817.

Potassium tetraoxalate in acidimetry, Rec. VII, 185.

Potato—

as a culture medium, Rec. X, 1014.

bacillus—

- as cause of "sticky" bread, Rec. XI, 565.
- new, Rec. VII, 929.

beetle—

- destruction by quails, Rec. IV, 668.
- enemy, Rec. XII, 580.
- in Nova Scotia, Rec. III, 813.
- insecticides for, Bul. 2, II, 41; Rec. II, 599, 637; VII, 413.
- notes, Bul. 2, II, 119; Rec. IV, 840; V, 402; X, 458; XI, 957.
- parasites, Rec. XII, 470.
- remedies, Rec. III, 395, 403; XII, 164, 165.

beetle, Colorado—

- natural enemy, Rec. XI, 767.
- notes, Bul. 2, I, 177; Bul. 2, II, 119; Rec. I, 21, 22; III, 46, 175, 198, 792; V, 63, 101, 206, 402, 593; VII, 42; VIII, 136, 145, 321, 904; IX, 151, 446, 458, 575, 662, 856, 1072; X, 62, 270; XI, 273, 952.
- remedies, Rec. I, 138, 169; IV, 58; VIII, 138, 145, 904; XII, 863.
- Southern range, Rec. V, 328.

blight— (See also POTATO ROT.)

- American early, in Germany, Rec. VII, 788.
- fungicides for, Rec. II, 293, 633; III, 10; IV, 471, 928; VIII, 138.
- in Brittany, Rec. IV, 694.
- nature and treatment, Rec. IV, 170, 250, 471, 561, 729, 828.
- notes, Rec. II, 303, 482; III, 10, 172; V, 61, 629, 988; VIII, 136, 999; IX, 851; X, 453, 824; XI, 255.
- studies, Rec. VIII, 62, 137.
- treatment, Rec. II, 293; III, 10, 101; V, 306, 307, 787, 789, 978, 988, 1004; VI, 307, 560, 735, 738, 832, 997; VII, 136, 140, 220, 311, 409, 589; VIII, 138, 141, 234, 239, 992; IX, 764, 1060; XI, 355.

blights and fungicides, Rec. VIII, 138, 995.

brown rot, notes, Rec. VII, 136; XI, 260.

bud weevil, notes, Rec. VI, 1002; X, 61.

bulblets, Chinese, culture experiments, Rec. IV, 39.

cake, manufacture, Rec. VII, 336.

Chinese, notes, Rec. VI, 142.

cutter, description, Rec. XII, 140.

Potato—Continued.

disease, Rec. IX, 960.

disease—

- American, in Europe, Rec. VIII, 141.
- caused by *Rhizoctonia solani*, Rec. VIII, 995.
- due to *Macrosporium* sp., Rec. IV, 49.
- epidemic in Finland, Rec. XI, 59.
- in New South Wales, Rec. VII, 311.
- the United Kingdom, Rec. VI, 557.
- new, Rec. I, 150; III, 892; VII, 571, 873; VIII, 317; X, 266; XI, 861, 1061.
- treatment, Rec. VI, 305, 435; X, 761, 762, 865; XI, 168.
- undetermined, treatment, Rec. IV, 18.
- unidentified, Rec. XI, 314.

diseases, Rec. II, 567.

diseases—

- in Germany, Rec. X, 653.
- notes, Rec. V, 263, 348, 591, 787, 790, 1004; VI, 234, 316; VII, 39, 136, 410, 962; VIII, 607; XI, 1057; XII, 255, 419, 462, 566, 656.
- prevention, Rec. VIII, 240, 800; IX, 61.
- remedies, Rec. X, 762; XII, 132.
- résumé, Rec. XI, 861.
- studies, Rec. X, 156.
- undetermined, Rec. IV, 400, 471.

dry rot—

- notes, Rec. VII, 788, 875; X, 761; XII, 61.
- treatment, Rec. IX, 851.

early blight, treatment, Rec. VIII, 234; IX, 851.

feed, analyses, Rec. XII, 877.

flea-beetle, notes, Rec. III, 360; IX, 71, 1072; X, 270, 571; XI, 273.

flour, Rec. X, 481.

flour and skim milk for calves, Rec. X, 482.

fungus—

- and insect enemies, Rec. IX, 760, 1062.
- diseases, Rec. VII, 875, 964; VIII, 992.

Fusarium disease, Rec. X, 266.

grub, notes, Rec. VII, 147, 316.

harvesters, tests, Rec. VI, 848; VIII, 636; IX, 1097; XI, 540; XII, 140, 296.

Hydrasias misasea on, in Germany, Rec. V, 654.

implements, Rec. IX, 128.

internal brown rot, Rec. VIII, 234, 239.

introduction into—

- Europe, Rec. VIII, 688; X, 432.
- Norway, Rec. XII, 143.

late blight. (See POTATO ROT.)

late rot. (See POTATO ROT.)

leaf blight—

- notes, Rec. IV, 169; VI, 228, 558; VII, 964; XI, 260.
- treatment, Rec. IV, 169.

leaf curl, notes, Rec. IX, 457.

leaf spot, *Macrosporium solani* as cause of, Rec. IX, 362.

Macrosporium disease, Rec. VI, 558.

Macrosporium, treatment, Rec. V, 59.

moth in New Zealand, Rec. VI, 567.

nematodes, Rec. VII, 876.

new disease, Rec. IX, 858.

new *Fusarium*, Rec. VIII, 234.

new *Micrococcus*, Rec. VIII, 994.

parings, fertilizing ingredients, Rec. V, 391.

Potato—Continued.

Phytophthora. (*See* POTATO ROT.)

plant—

- adherence of fungicides, *Rec. III*, 734.
- effect of copper compounds, *Rec. V*, 732, 819, 926.
- enemies, *Rec. I*, 41.
- transpiration, *Rec. VII*, 372, 467.

pomace, analyses, *Rec. IX*, 866; *XII*, 587.proteids of, *Rec. VIII*, 371.

pulp—

- fermented, effect on cattle, *Rec. V*, 130.
- from starch factories as a feeding stuff, *Rec. IV*, 519.

residue for—

- cows, *Rec. III*, 538.
- steers, *Rec. III*, 570.

Rhizoctonia disease, notes, *Rec. XII*, 61.root rot, notes, *Rec. XII*, 462.rot— (*See also* POTATO BLIGHT.)

- as affected by rainfall, *Rec. IX*, 1061.
- causes, *Rec. VIII*, 800, 995.
- fungicides for, *Rec. IV*, 399, 471, 928; *V*, 317, 425; *VII*, 872.
- injury by, *Rec. IV*, 400.
- notes, *Rec. I*, 225; *II*, 32, 133, 482, 581, 650; *III*, 10, 161, 172, 217, 297, 307, 479, 532, 847; *IV*, 51, 169, 334, 593, 594, 659, 872, 955; *V*, 60, 61, 399, 425, 591, 787, 878, 1034; *VI*, 437, 558, 560; *VIII*, 999; *IX*, 760; *X*, 156, 266, 444; *XI*, 255, 260, 1057; *XII*, 61, 572.

- prevention, *Rec. VIII*, 225; *XI*, 59, 255.
- studies, *Rec. VIII*, 996; *IX*, 61, 362, 660, 1062; *X*, 156, 865.

- treatment, *Rec. I*, 74, 150, 169, 264, 291; *II*, 32, 173, 293, 407, 650; *III*, 101, 688, 749, 847, 864, 926; *IV*, 55, 169, 399, 471, 592, 594, 864, 872, 928, 971, 985; *V*, 61, 226, 306, 307, 425, 821; *VI*, 57, 62, 435, 737, 738; *VII*, 872, 876; *VIII*, 137, 234, 237, 605, 606, 607, 800; *IX*, 251, 458, 761, 851, 852; *XII*, 462.

rots, antagonistic relations, *Rec. IV*, 400.scab— (*See also* BEET SCAB.)

- and potato rot, *Rec. VI*, 441.
- causes, *Rec. VIII*, 139, 320.
- conditions affecting development, *Rec. III*, 772.
- conditions favoring development, *Rec. II*, 27, 580; *III*, 623.
- cotton-hull ashes for, *Rec. V*, 590.
- development as affected by fertilizers, *Rec. XI*, 256.
- effect of barnyard manure on, *Rec. III*, 772; *V*, 590.
- effect of fertilizers on, *Rec. V*, 590.
- effect of gypsum on, *Rec. III*, 772.
- effect of iron oxid on, *Rec. III*, 772.
- effect of muriate of potash on, *Rec. III*, 771.
- experiments in prevention, *Rec. III*, 771.
- forms, *Rec. II*, 581; *III*, 9.
- fungicides for, *Rec. II*, 61; *III*, 619; *IV*, 560; *VI*, 908, 995.
- fungus, description, *Rec. III*, 9, 772.
- fungus, notes, *Rec. II*, 304; *III*, 810; *XII*, 61, 261, 467, 767.

Potato—Continued.

scab—continued.

- gnat in Missouri, *Rec. VI*, 740.
- gnat, notes, *Rec. V*, 935; *VI*, 651.
- insects causing, *Rec. V*, 935.
- investigation, *Rec. III*, 9, 771; *VIII*, 239.
- new form, *Rec. IX*, 858.
- notes, *Bul. 2*, I, 67, 88; *Bul. 2*, II, 58; *Rec. I*, 80, 81, 168; *II*, 267; *III*, 161, 307, 395, 772, 854, 892; *IV*, 956; *V*, 194, 787, 1034; *VI*, 559, 560, 735, 997, 1000; *VII*, 141, 410, 875, 964; *IX*, 851; *X*, 448, 453, 561; *XI*, 163, 255, 260, 356, 498, 1057.
- on beets, notes, *Rec. XII*, 253.
- sugar beets, *Rec. III*, 854.

parasite, *Rec. VII*, 875.studies, *Rec. II*, 61, 490, 580; *IX*, 799, 851.susceptibility of root crops, *Rec. IX*, 565.

treatment for prevention, *Bul. 2*, I, 153; *Rec. II*, 61, 581; *III*, 619; *IV*, 559, 818, 926; *V*, 306, 308, 493, 591, 787, 789, 978, 1004, 1104; *VI*, 57, 60, 228, 379, 410, 738, 907, 910, 997, 1000; *VII*, 39, 136, 219, 311, 408, 589, 780, 782, 964; *VIII*, 137, 138, 239, 268, 318, 410, 412, 798, 799, 800, 893, 993; *IX*, 45, 57, 147, 327, 360, 363, 446, 456, 565, 566, 654, 764, 851, 936, 1059; *X*, 156, 264, 339, 350, 362, 444, 453, 456, 800, 967, 1051, 1058; *XI*, 250, 260, 356, 361, 468, 651, 751; *XII*, 351, 761, 859.

treatment with sulphur, *Rec. XII*, 760.virality of spores, *Rec. III*, 772.worm, notes, *Rec. VI*, 315.scald, notes, *Rec. XI*, 260.sclerotia diseases, *Rec. XI*, 469, 948.Sclerotium disease, notes, *Rec. XII*, 61.

seed—

- by direct method, *Rec. VI*, 785.
- distribution, *Rec. IV*, 436.
- effect of fertilizers on germination, *Rec. VI*, 542.

slump, milk produced on, *Rec. VIII*, 529.sphinx, notes, *Rec. II*, 14.spot disease, frizolée, notes, *Rec. XII*, 61.

stalk borer, notes, *Rec. II*, 332; *III*, 55, 176; *IV*, 731; *V*, 101; *VI*, 838; *VII*, 40, 41, 315, 696; *VIII*, 321; *IX*, 662, 964; *X*, 66, 871; *XI*, 171.

stalk disease, notes, *Rec. XII*, 462.

stalk weevil—

- notes, *Rec. II*, 332, 720; *IV*, 731; *V*, 101, 912; *IX*, 662; *XI*, 498.
- remedies, *Rec. XI*, 171.

starch—

- as an adulterant of flour, *Rec. XI*, 482.
- combination with iodine, *Rec. VII*, 738.
- for fixation of iodine, *Rec. VII*, 185.
- grain parasites, *Rec. VIII*, 994.
- industry, notes, *Rec. VI*, 344.
- manufacture, *Rec. IX*, 196, 895, 1095; *XII*, 994.

stem blight—

- communicability, *Rec. X*, 452.
- new, *Rec. VIII*, 235.

tip burn, *Rec. IX*, 560; *XI*, 355.

tuber, a reservoir for water for growing plants, *Rec. V*, 802.

Potato—Continued.

- tuber moth—
 - in California and Texas, Rec. V, 901.
 - notes, Rec. III, 811; IV, 688.
- tubers—
 - above ground, Rec. X, 560.
 - Lasius niger* in, Rec. VI, 152.
 - mealy bug, new, on, Rec. VI, 438.
 - sprouting, metabolic changes in, Rec. IV, 858, 871.
 - value of different parts for planting, Rec. XI, 751.
- vines—
 - as a fertilizer, Rec. VIII, 300.
 - for cows, Rec. VI, 76.
- water for plant lice, Rec. I, 45.
- wet rot, Rec. IX, 239.
- wet rot—
 - notes, Rec. VII, 788; XII, 61.
 - studies, Rec. VIII, 607; X, 761, 862, 972.
- wild, of the Mexican region, Rec. IV, 817.
- yellow blight, notes, Rec. XI, 948; XII, 462.

Potatoes—

- adhesive copper fungicides for, Rec. XI, 1061, 1062.
- albuminoids in, Rec. II, 718.
- analyses, Bul. 2, I, 22, 33, 37; Bul. 2, II, 40; Rec. II, 334, 580, 664, 669, 718; III, 34, 802, 883; IV, 59, 984; V, 992; VI, 569; VII, 336, 498, 974; VIII, 520, 775; IX, 129, 479, 678, 831, 981; X, 678, 716, 1033; XI, 249; XII, 478.
- and roots—
 - effect on digestibility of rations for cows, Rec. IX, 1082.
 - effect on quality of butter, Rec. V, 974; IX, 1082.
- as food, Rec. IX, 479.
- food for man, Rec. X, 698.
- ashes as a fertilizer for, Rec. II, 60.
- assimilation of carbonic acid by, Rec. IV, 613.
- atavism, Rec. XI, 710.
- bacterial disease, Rec. IV, 169; V, 1018; VII, 963; VIII, 895; XI, 260, 464, 468, 556.
- barnyard manure—
 - for, Rec. II, 26, 51, 325, 670; III, 32, 529, 874; IV, 818; V, 393, 702, 708, 715, 933.
 - v. muriate* of potash for, Rec. VIII, 400.
- bibliography of experiments, Bul. 2, II, 72.
- Botrytis cinerea* on, Rec. V, 263.
- breeding, Rec. VII, 347; IX, 552; XI, 144.
- brine test for, Rec. VI, 889.
- budding, Rec. VIII, 218.
- Cetewayo, analyses, Rec. IV, 984.
- composition and yield as affected by—
 - chlorids, Rec. XII, 436.
 - potash salts, Rec. X, 140; XII, 443.
- composition as affected by—
 - fertilizers, Rec. III, 868.
 - water and fertilizers, Rec. XII, 938.
- condition and acreage, Rec. III, 107, 183, 253, 326; IV, 203, 283, 431.
- cooked—
 - for cattle and sheep, Rec. VII, 64.
 - pigs, Bul. II, 44; Rec. II, 439; V, 200.
- cooperative experiments, Rec. VI, 410; VII, 30, 862; VIII, 125, 393, 688; X, 955.
- cost of growing, Rec. VII, 397.

Potatoes—Continued.

- crop statistics, Rec. V, 328, 612; VI, 582; VII, 73; X, 98.
- cross-fertilizing varieties, Rec. V, 435.
- crushing machines for, Rec. VI, 346.
- cucumber flea-beetle on, Rec. IX, 156; X, 261.
- cultivation, Rec. II, 28, 71, 512, 637, 664; V, 680, 978.
- cultivation—
 - flat *v.* in high ridges, Rec. IV, 44; V, 492.
 - to different depths, Rec. IV, 44; V, 43, 183; VI, 536; X, 349.
- culture, Rec. III, 32, 405, 589, 781, 802, 926; VII, 210, 955; VIII, 125, 219; IX, 242, 348, 357, 552; X, 43, 339, 635, 749, 950, 951; XI, 241, 296, 340, 642, 1038; XII, 140, 143, 698.
- culture—
 - bibliography, Rec. X, 847.
 - experiments, Bul. 2, I, 32, 64, 103; Bul. 2, II, 45; Rec. I, 94, 188; IV, 30, 39, 108, 346, 647, 818, 872; V, 493, 825; VI, 36, 291, 293, 296, 410, 726, 807, 808, 890, 983, 985; VII, 122, 397, 498, 576, 681, 765, 859; VIII, 121, 308, 313, 407, 688, 689, 885; IX, 42, 45, 243, 343, 614, 1044; X, 43, 136, 350, 433, 955; XI, 440, 630, 1047; XII, 40, 229, 443, 536, 537, 1036.
- in Algeria, Rec. VIII, 219.
- Canada, Rec. XII, 338.
- cold frames, Rec. VIII, 688.
- Florida, Rec. VII, 299.
- France, Rec. III, 656; IV, 879; V, 117; VI, 637; VIII, 781; X, 1039; XI, 44.
- Germany, Rec. III, 927.
- India, Rec. V, 333; VII, 498.
- Indiana, Rec. VII, 765.
- Norway, Rec. VIII, 122.
- Russia, Rec. X, 245.
- Sweden, Rec. VI, 45.
- Virginia, Rec. II, 133.
- level, *v.* ridge, Rec. X, 543.
- memoir, Rec. XII, 1032.
- station at Neuhaus, Rec. VII, 681.
- determination of starch, Rec. I, 13; III, 578, 748; IV, 389.
- development of tubers, Rec. XII, 214.
- digestibility, Rec. IV, 734; VII, 974; VIII, 520; IX, 679; 1082.
- distribution, Rec. IX, 834.
- double cropping with cabbage, Rec. XI, 44.
- effect of—
 - drying seed, Bul. 2, II, 118.
 - fertilizers, Bul. 2, II, 40, 41, 83; Rec. II, 60, 567, 585, 595, 665, 669, 734.
 - fertilizers containing chlorin, Rec. VI, 720.
 - fractional harvesting on yield, Rec. VI, 291.
 - light on growth, Rec. V, 117.
 - muriate* of potash on starch formation, Rec. III, 869.
 - phosphates on, Rec. II, 649.
 - water on yield, Rec. II, 665.
 - weather on crop, Rec. X, 647.
- ensiling, Rec. VIII, 689; IX, 268; X, 397; XI, 1038.
- evaporated, Rec. IX, 696.

Potatoes—Continued.

evaporated, food value, Rec. XII, 980.
 extra-early, Rec. XI, 145, 535; XII, 298.
 feeding value, Rec. X, 182.
 fertilizers above *v.* below seed, Bul. 2, I, 146;
 Rec. II, 596; III, 589.
 fertilizer experiments, Bul. 2, I, 37, 51, 88, 94,
 190; Rec. I, 35, 87, 219, 285; II, 325, 485; III, 32,
 34, 145, 159, 165, 187, 281, 294, 299, 300, 394, 405,
 529, 694, 791, 807, 866, 868, 873, 881; IV, 30, 108,
 132, 141, 716, 817, 818, 819; V, 35, 42, 116, 171, 179,
 256, 291, 392, 437, 548, 573, 575, 624, 702, 708, 715,
 731, 978; VI, 208, 295, 296, 399, 410, 419, 805, 890;
 VII, 121, 201, 203, 209, 210, 307, 579, 667, 681, 761,
 860, 942, 955; VIII, 121, 126, 216, 217, 218, 401,
 581, 975; IX, 39, 43, 44, 128, 550, 552, 830, 831,
 832, 1048; X, 140, 147, 246, 339, 344, 349, 431, 433,
 548, 836, 848, 950, 953, 1036, 1038; XI, 235, 241,
 332, 337, 340, 440, 543, 640, 733, 833, 834, 842, 926,
 1027, 1928, 1038; XII, 44, 127, 139, 141, 228, 235,
 333, 338, 339, 441, 443, 533, 547, 623, 641, 843, 845,
 937, 941, 942, 952, 1029.
 fertilizer formula, Rec. XII, 851.
 fertilizers for, Rec. II, 273.
 field experiments, Bul. 2, I, 21; Bul. 2, II, 33,
 39, 41, 57, 71, 75, 83, 88, 117, 123; Rec. II, 6, 26,
 27, 30, 58, 71, 133, 146, 150, 316, 324, 348, 412, 423,
 485, 488, 491, 507, 512, 566, 580, 584, 595, 637, 664,
 665, 669, 718, 734, 740; VII, 765.
 following clover, Rec. II, 27.
 food value, Rec. IX, 479.
 for cattle, Rec. V, 813; VI, 163, 573; VII, 64,
 248, 616.
 cows, Rec. IV, 181; V, 540, 813; VI, 160,
 163, 573; VII, 337.
 European markets, Rec. VI, 215.
 horses, Rec. V, 540.
 live stock, Rec. VII, 63, 155, 248, 337, 616.
 pigs, Rec. I, 216; II, 439, 647; V, 200; VI,
 77; VII, 975; VIII, 80, 918; IX, 871; X,
 73, 83.
 sheep, Rec. V, 540; VI, 163, 573; VII, 64,
 248, 616; XI, 181.
 stock feeding, Rec. VI, 448.
 forcing, Rec. X, 149.
 freezing, chemical changes due to, Rec. XI,
 576.
 germination as affected by fertilizers, Rec. VI,
 542.
 grafting experiments, Rec. X, 432; XII, 942.
 Grand Cayman phosphates for, Rec. II, 484,
 485.
 green manuring, Rec. VI, 292, 722; VIII, 216.
 green manuring with sweet clover, Rec. V,
 701.
 greening, notes, Rec. XII, 61.
 growth as affected by water and soil nutri-
 ents, Rec. XI, 927.
 guano—
 Bolivian, for, Rec. II, 458.
 for, Rec. V, 715.
 Mona Island, for, Rec. II, 485; III, 159.
 gypsum for, Rec. V, 573.
 harvesting, Rec. III, 579.
 harvesting and storing, Rec. IX, 552.
 history and improvement, Rec. VII, 397.
 hollow, Rec. XI, 44.

Potatoes—Continued.

improvement by selection of tubers rich in
 starch, Rec. III, 655.
 in poor soils, Rec. VII, 32.
 rotations, Rec. X, 953.
 rotations on light soils, Rec. V, 652.
 influence of latitude, Rec. II, 507.
 insect enemy, Rec. V, 732.
 insecticides and fungicides for, Rec. II, 24;
 III, 23; VII, 136.
 irrigation experiments, Rec. IV, 818; V, 691;
 VI, 86, 536, 542; IX, 43, 595; X, 747; XI, 538;
 XII, 40, 641.
 kaint for, Rec. II, 146, 325; III, 34; V, 731; X,
 848, 1038.
 level *v.* ridge culture, Rec. X, 543.
 lime for rot, Rec. II, 407.
 liming experiments, Rec. VII, 760; XII, 845.
 loss of nutrients in boiling, Rec. IX, 678.
 machine for peeling, Rec. VI, 848.
 manuring, Rec. IX, 833.
 metabolism and respiration, Rec. VI, 276.
 monograph, Rec. XII, 942.
 muck *v.* manure for, Rec. II, 596.
 mulching, Rec. IV, 818; VI, 985; VII, 860; XII,
 235.
 mulching *v.* cultivation, Rec. V, 184.
 muriate of potash *v.* sulphate of potash for,
 Rec. V, 291; VIII, 399; IX, 45.
 new variety, Rec. X, 749.
 nitrate of soda—
 for, Rec. II, 892; VII, 28, 178.
v. sulphate of ammonia for, Rec. V, 232.
 Norwegian, starch content, Rec. V, 1017; IX,
 981.
 notes, Rec. X, 547.
 nutritive value, Rec. IX, 263; X, 74; XI, 73.
 origin and variability, Rec. VI, 808; XII, 443.
 originating varieties, Rec. VI, 804.
 phosphate, crude, for, Rec. IV, 131.
 phosphate, South Carolina, for, Rec. II, 485;
 III, 159.
 phosphatic—
 fertilizers for, Rec. II, 147, 149, 483, 649;
 III, 159.
 slag for, Rec. II, 26, 484; III, 159; V, 702;
 VI, 893.
 physiological studies, Rec. IV, 871.
 physiology of sprouting, Rec. III, 927.
 simply, Rec. VIII, 235.
 planting, Rec. II, 30, 60, 64, 73, 147, 150, 423,
 512, 584, 595, 637, 664, 669.
 planting—
 at different dates, Rec. V, 494, 623; VI,
 208, 999; VII, 862; VIII, 60; IX, 134,
 764; X, 349; XII, 641.
 different depths, Bul. 2, II, 88; Rec. V,
 183, 493, 623, 1073; VII, 203, 475, 859;
 IX, 43, 443, 645, 654; X, 740.
 different distances, Rec. III, 694, 873;
 V, 180, 233, 624, 871, 979; VII, 28, 681;
 VIII, 216, 596, 688; IX, 39; X, 630;
 XI, 44.
 different rates, Rec. I, 219; V, 42, 180,
 181, 182, 493, 581, 585, 879; VII, 297,
 498, 859; X, 349.
 bud *v.* stem end, Rec. IX, 654.

Potatoes—Continued.

planting—continued.

- different methods of, **Bul. 2, I, 190; Bul. 2, II, 41; Rec. I, 219, 297; V, 180; VI, 632; VII, 860, 862; VIII, 120, 216.**
- different numbers of eyes, **Rec. II, 51, 58, 595, 665; IV, 466.**
- different sized cuttings, **Bul. 2, II, 40, 71, 88; Rec. I, 75, 86; II, 27, 72, 584; V, 43, 493, 581, 979; VI, 418; VII, 676; IX, 43; XII, 232, 641, 845.**
- different sized tubers, **Bul. 2, II, 40, 41; Rec. II, 71, 404, 595, 665; III, 873; IV, 38, 140, 818; IX, 443; X, 629, 630; XI, 1038.**
- different weights of seeds, **Rec. III, 351; IV, 222, 876.**
- immature seed, **Rec. II, 718.**
- in hills and drills, **Rec. IV, 141; V, 188.**
- Northern *v.* Southern grown seed, **Rec. II, 349, 669; III, 168, 445, 480, 515; IV, 38, 721; VIII, 217; XII, 139.**
- seed ends, **Rec. II, 58, 584, 665; III, 873.**
- seed from different localities, **Rec. II, 566; VII, 202; VIII, 217, 307, 399; IX, 934; X, 542, 952.**
- seed from different soils, **Rec. XII, 641.**
- seed from first and second crop, **Rec. III, 19; V, 491; X, 542; XI, 296.**
- seed selection, **Rec. II, 29, 71, 567, 584, 595, 665, 669, 716; VI, 634, 722; VII, 122, 759; IX, 942; X, 43, 1039; XI, 529, 1038; XII, 43, 234, 845.**
- seed selection and preparation, **Rec. IV, 30, 38, 140, 141, 222, 466, 818, 819, 872; V, 180, 181, 182; IX, 847; XII, 462.**
- smooth *v.* knobby tubers, **Bul. 2, I, 154;**
- sprouted tubers, **Bul. 2, I, 146; Rec. III, 619; VIII, 975; IX, 134.**
- tubers with seed ends removed, **Bul. 2, I, 146; Bul. 2, II, 31; Rec. IV, 141; V, 494.**
- whole tubers *v.* cuttings, **Bul. 2, I, 146; Bul. 2, II, 40, 71, 75, 88; Rec. II, 30, 51, 72, 325, 567, 595, 596, 637, 655, 669, 718; III, 404, 515, 531, 589, 694, 781, 807, 873; IV, 30, 38, 140, 141, 818, 819; V, 181, 182, 183, 624; VI, 536; VII, 203, 209; VIII, 125; IX, 239.**
- wilted or sprouted seed, **Rec. IV, 222, 872.**
- plowing to different depths for, **Rec. IV, 44.**
- poisoning by, **Rec. VIII, 332; IX, 390.**
- potash for, **Rec. I, 220; IV, 716; VIII, 399; XII, 849.**
- potassium chlorid for, **Rec. X, 141.**
- poudrette for, **Rec. VI, 892.**
- preparation of soil, **Rec. VII, 29.**
- preservation, **Rec. V, 875; VI, 216.**
- preservation for culture medium purposes, **Rec. VIII, 868; IX, 392.**
- production—
 - and distribution, **Rec. IV, 845.**
 - exports and imports, **Rec. VII, 73.**
 - of inside tubers, **Rec. IV, 985.**
- profits in early, **Rec. II, 567.**
- quality as affected by—
 - different fertilizers, **Rec. XI, 838.**
 - fertilizers, **Rec. XII, 443.**

Potatoes—Continued.

- quantities of plant food utilized, **Rec. X, 1038.**
- raw and boiled—
 - digestibility of, **Bul. 2, II, 44, 61.**
 - for pigs, **Bul. 2, II, 44.**
- raw, feeding to live stock, **Rec. V, 540, 812.**
- removal of lateral eyes of seed tubers, **Rec. VI, 808.**
- respiration in, **Rec. IV, 782.**
- root—
 - growth as related to methods of culture, **Rec. XII, 339.**
 - system, **Rec. XI, 215; XII, 517.**
- rotation experiments, **Rec. V, 732; X, 953; XI, 842; XII, 1030.**
- seaweed for, **Rec. VIII, 596.**
- second crop, **Rec. VI, 140.**
- second crop—
 - culture, **Rec. II, 658; IV, 29.**
 - for seed, **Rec. III, 19; V, 491; XI, 296.**
 - seed *v.* Northern-grown seed, **Rec. X, 542.**
- second-growth, transfer of starch, **Rec. IV, 959.**
- solanin in, **Rec. VII, 652, 749; X, 953, 1005.**
- special fertilizers for, **Rec. II, 273.**
- spraying, **Rec. V, 988; VI, 908, 910, 999; VII, 29, 860; VIII, 60, 216; XI, 441.**
- spraying with—
 - arsenate of lead, **Rec. IX, 75.**
 - Bordeaux mixture, **Rec. VI, 234; IX, 764, 765.**
 - copper sulphate, **Rec. VI, 560.**
 - copper sulphate and sodium carbonate, **Rec. VII, 307.**
 - sodium carbonate, **Rec. VII, 307.**
- sprouting—
 - before planting, **Rec. IX, 134.**
 - metabolic changes, **Rec. IV, 871, 858.**
 - transfer of starch in, **Rec. IV, 871, 959.**
- starch—
 - and sugar in, **Rec. V, 476.**
 - content, **Rec. I, 13; III, 357; IV, 389, 449; V, 128, 1017; VI, 140, 536, 720; VII, 765, 955; VIII, 120, 122, 125, 223, 596, 682; IX, 239, 643, 899, 981; X, 43, 847; XII, 141, 144, 907.**
- starch content—
 - and density of, **Rec. V, 728.**
 - and yield as affected by seed, **Rec. IV, 959.**
 - as related to diseases, **Rec. XI, 255.**
 - of different varieties, **Rec. V, 128.**
- starch content as affected by—
 - Bordeaux mixture, **Rec. VIII, 122; XII, 140.**
 - chlorin compounds, **Rec. VI, 720.**
 - culture, **Rec. X, 339.**
 - distance of planting, **Rec. VIII, 688.**
 - fertilizers, **Rec. XII, 141.**
 - manure, **Rec. VIII, 223.**
 - muriate of potash, **Rec. III, 869.**
 - seed treatment, **Rec. X, 339.**
 - starch content of seed, **Rec. IV, 959.**
 - spraying, **Rec. X, 339.**
- storage, **Rec. IV, 30; VI, 418, 722; VII, 297; IX, 831; XII, 139.**

Potatoes—Continued.

storage—

- changes in, Rec. III, 493.
- in winter, Rec. VII, 505.
- loss of weight, Rec. VII, 498.
- to prevent rot, Rec. XI, 59.

studies, Rec. X, 749.

subsoiling, Rec. IX, 239; XII, 628.

sulphate of—

- ammonia for, Rec. V, 715.
- iron for, Rec. VII, 299.
- potash for, Rec. III, 874; IX, 39.

transplanting, Rec. VI, 409.

trenching, Rec. II, 73; VII, 859.

tubercles on, Rec. VI, 152.

varieties, Bul. 2, I, 24, 31, 146; Bul. 2, II, 33, 39, 41, 45, 57, 75, 117, 123; Rec. I, 13, 35, 75, 76, 84, 86, 89, 99, 122, 143, 184, 188, 219, 254, 297; II, 5, 6, 24, 25, 26, 29, 30, 50, 58, 69, 71, 73, 109, 133, 146, 150, 324, 342, 348, 372, 375, 392, 395, 396, 423, 448, 507, 512, 567, 584, 587, 598, 637, 649, 659, 669, 740; III, 30, 82, 85, 128, 356, 360, 361, 402, 445, 453, 480, 515, 531, 589, 625, 626, 627, 655, 689, 693, 703, 719, 743, 781, 786, 791, 802, 831, 872; IV, 30, 108, 141, 250, 436, 449, 721, 766, 817, 819, 872; V, 42, 128, 179, 183, 184, 232, 256, 491, 493, 540, 577, 585, 623, 652, 785, 870, 871, 873, 877, 978, 979, 983, 1029, 1085, 1098; VI, 36, 44, 56, 140, 142, 208, 216, 291, 293, 295, 296, 410, 416, 417, 418, 419, 536, 634, 722, 808, 890, 898, 983, 985, 988; VII, 28, 32, 120, 122, 202, 209, 210, 213, 297, 299, 300, 405, 498, 579, 580, 581, 675, 859, 862, 947, 955; VIII, 121, 126, 216, 217, 219, 307, 308, 491, 688, 755, 777, 791, 889, 972, 975, 977; IX, 39, 43, 45, 51, 128, 133, 134, 239, 244, 340, 443, 446, 552, 828, 829, 830, 831, 832, 833, 1048; X, 42, 43, 48, 147, 254, 350, 432, 538, 543, 627, 629, 635, 836, 846, 847, 951, 955, 1034, 1039; XI, 146, 235, 241, 250, 332, 337, 440, 441, 442, 531, 630, 733, 834, 842, 924, 1038; XII, 44, 135, 139, 144, 228, 235, 338, 339, 443, 450, 533, 630, 636, 641, 849, 997, 1038.

varieties—

- Northern v. Southern, Rec. VIII, 775.
- originating, Rec. VI, 804.

v. roots for lambs, Rec. XI, 181.

silage for cows, Rec. IX, 883.

sugar beets for butter production, Rec. V, 974.

yield, Rec. IV, 500, 825.

yield—

- and value, Rec. II, 608.
- in Great Britain, Rec. III, 835.
- the United States, Rec. III, 414.
- on bottom land v. upland, Rec. IX, 239.
- per acre, Rec. III, 33.

yield as affected by—

- altitude, Rec. XII, 636.
- fractional harvesting, Rec. III, 740; VI, 291.
- starch content of seed, Rec. IV, 886, 959; VII, 765; VIII, 120.
- size of vines, Rec. XII, 144.

Potentilla—

- anserina*, notes, Rec. VIII, 703.
- canadensis*, notes, Rec. III, 893; V, 398.
- eremica*, notes, Rec. VI, 114.

Potentilla—Continued.

fruticosa, notes, Rec. IV, 656.

purpurascens pinetorum, notes, Rec. VI, 114.

Poterium sanguisorba, notes, Rec. III, 51, 85; VI, 531, 883; IX, 41.

Potometer, description, Rec. IX, 421.

Pots, filling for sand cultures, Rec. V, 760, 765.

Poudre—

- analyses, Rec. IV, 449, 692; V, 727, 801; XII, 531.
- and nitrate of soda for potatoes, Rec. VI, 892.
- as a fertilizer, Rec. VI, 27.
- availability of nitrogen, Rec. IX, 436.
- Bremer, fertilizer experiments, Rec. VIII, 117.
- field experiments, Rec. VII, 25.
- Leipsic, analyses and fertilizing value, Rec. XII, 624.

Pouillet's phenomenon, investigation, Rec. XII, 837.

Poultry— (See also CHICKENS, FOWLS, and HENS.)

analyses, Rec. IV, 59.

and egg industry, Rec. V, 608, 1005.

and eggs, Rec. X, 584.

animal—

- matter for, Rec. XI, 397.
- parasites, Rec. X, 280.
- v. vegetable food for, Rec. VIII, 425; XI, 76; XII, 276.

associations of Ontario, reports, Rec. VIII, 332, 428; XI, 577.

at Alabama College Station, Rec. II, 85.

Louisiana Stations, Rec. IV, 748; V, 203; VI, 243, 574; XII, 878.

Michigan Station, Rec. V, 930; VIII, 924; X, 180.

Rhode Island Station, Rec. V, 794; VII, 889.

blackhead of, notes, Rec. XII, 894.

bone, analyses, Rec. XII, 378.

breeding, Rec. X, 282; XII, 781.

breeding and marketing, Rec. IX, 683.

breeds, Rec. VIII, 332; IX, 176, 378.

breeds—

- and American standards of perfection, Rec. XI, 80.
- crosses, Rec. XI, 1074.
- crosses, comparison, Rec. XI, 1073.
- number and weight of eggs, Rec. V, 439.
- tests, Rec. V, 637, 794; VI, 647; VII, 613; VIII, 923; IX, 874; X, 280.

carbonaceous v. nitrogenous diet, Bul. 2, II, 44; Rec. II, 506.

congestion of lungs in, treatment, Rec. XII, 1092.

corn v. wheat for, Rec. XII, 279.

cracklings, ground, for, Rec. XI, 279.

culture, Rec. X, 184, 679; XI, 972.

culture, special instruction, Rec. XII, 982.

determination of age, Rec. X, 584.

diphtheria, Rec. VII, 524, 618; X, 496; XI, 697.

diseases, Rec. VIII, 626; X, 280.

diseases—

- manual, Rec. XI, 697.
- notes, Rec. VII, 614; VIII, 335; XI, 291; XII, 894.
- treatment, Rec. X, 1087; XII, 1092.
- drawn v. undrawn, Rec. X, 482.

Poultry—Continued.

- egg production. (*See* EGG PRODUCTION.)
- epilepsy of, *Rec. XII*, 894.
- experiments, *Bul. 2*, 1, 144; *Rec. II*, 505, 588; *IV*, 262; *XI*, 883; *XII*, 179, 376.
- external parasites, *Rec. XII*, 294.
- farming, profitable, *Rec. IX*, 1081.
- favus—
 - notes, *Rec. XII*, 492, 894.
 - treatment, *Rec. XII*, 1092.
- feed mixtures, analyses, *Rec. XII*, 907.
- feeding, *Rec. XII*, 781.
- feeding—
 - and management, *Rec. VII*, 155, 249, 524; *IX*, 874.
 - experiments, *Bul. 2*, 11, 44; *Rec. III*, 399, 705, 708; *VI*, 466, 1022; *IX*, 88; *X*, 580; *XI*, 76; *XII*, 276, 279, 589, 674.
 - in Jamaica, *Rec. XI*, 577.
 - Réunion, *Rec. XI*, 577.
 - practical, *Rec. VIII*, 332.
- fleas, destruction, *Rec. XI*, 697.
- foods, analyses, *Rec. VII*, 148; *VIII*, 426; *IX*, 979; *XI*, 279; *XII*, 70, 281, 282, 378, 472, 587, 877.
- gapes, *Rec. X*, 393; *XI*, 495.
- gapeworms, remedies, *Rec. XII*, 91, 392.
- gastro-enteritis in, *Rec. XII*, 894.
- house—
 - description, *Rec. II*, 589; *X*, 885; *XI*, 295; *XII*, 179.
 - floored v. unfloored, *Rec. XI*, 776.
 - heating, *Rec. IX*, 784.
 - portable, *Rec. XI*, 779.
- improvement, *Rec. IX*, 378.
- industry, *Rec. VIII*, 521, 1015.
- industry in—
 - Belgium, *Rec. X*, 1089.
 - Denmark, *Rec. X*, 83.
 - England, *Rec. VI*, 163; *X*, 577.
 - Mexico, *Rec. IX*, 481.
 - Normandy, *Rec. IX*, 184.
 - Ontario, *Rec. IX*, 481.
 - Russia, *Rec. IX*, 176; *XI*, 484.
- keeping, *Rec. VI*, 1023.
- keeping for profit, *Rec. VIII*, 720; *IX*, 378.
- leukæmia in, *Rec. IX*, 890; *XII*, 894.
- lice, remedies, *Rec. XI*, 561.
- management, *Rec. X*, 885.
- manager, report, *Rec. V*, 637; *IX*, 481, 874.
- manure as a fertilizer, *Rec. XI*, 830.
- marketing in England, *Rec. X*, 482.
- mites, notes, *Rec. XI*, 495.
- notes on, *Rec. II*, 147; *VI*, 931; *XII*, 492, 585, 1078.
- on the farm, *Rec. IX*, 176.
- parasites, *Rec. VII*, 791, 806; *VIII*, 335; *IX*, 96, 392.
- parasitic diseases, *Rec. VIII*, 912, 928.
- pip of, *Rec. XII*, 894.
- plant parasites of, *Rec. XI*, 495.
- raising—
 - cooperative, *Rec. XI*, 484.
 - manual, *Rec. VII*, 986; *XI*, 80.
 - requirements, *Rec. XI*, 972.
 - with fruit culture, *Rec. XII*, 179.
- rations, *Rec. V*, 638.
- roup, catarrhal, treatment, *Rec. XII*, 894, 1092.

Poultry—Continued.

- school at Gambias, France, description, *Rec. IX*, 298.
- sunflower seed for, *Rec. VII*, 986.
- tapeworms, *Rec. VIII*, 1015.
- tuberculosis in, *Rec. XII*, 894, 1092.
- Poverty—
 - grass, Southern, analyses, *Rec. VI*, 403.
 - weed, notes, *Rec. V*, 306; *VI*, 57; *VIII*, 794.
- Powder—
 - distributing apparatus, *Rec. VIII*, 1003.
 - duster for plants, *Rec. XI*, 659.
 - post worm, *Rec. VIII*, 505.
- Powders, moistened, evolution of heat, *Rec. XII*, 837.
- Powdery bark disease, *Rec. VIII*, 705.
- Powell's Copperdine for potato scab, *Rec. V*, 789.
- Powers, motive, for use in agriculture, *Rec. IV*, 695.
- Prairie—
 - acacia, notes, *Rec. XI*, 354.
 - bunch grass, analyses, *Rec. VI*, 403.
 - clover, notes, *Rec. X*, 343.
 - dog, notes, *Rec. II*, 258.
 - grass—
 - analyses, *Rec. V*, 292; *VI*, 403.
 - culture experiments, *Rec. VIII*, 401.
 - root system, *Rec. XII*, 517.
 - hay—
 - analyses, *Rec. IV*, 175; *V*, 500; *VI*, 752, 1008.
 - v. timothy for cows, *Rec. VI*, 918; *VII*, 425.
- June grass—
 - analyses, *Rec. VI*, 404.
 - notes, *Rec. VIII*, 780.
- pastures, renovating, *Rec. VII*, 27; *VIII*, 774.
- rose—
 - climbing, notes, *Rec. III*, 522.
 - notes, *Rec. III*, 522.
- sagebrush, notes, *Rec. X*, 343.
- skies, *Rec. X*, 325.
- soils, pit experiments, *Rec. IV*, 714.
- squirrel, striped, food habits, *Rec. I*, 211.
- woodlands, *Rec. VI*, 301.
- Praon cerasaphis*, notes, *Rec. XII*, 362.
- Pratia erecta*, notes, *Rec. XI*, 120.
- Pratt's Food, analyses, *Rec. IV*, 567; *VI*, 153.
- Praying mantis, European, notes, *Rec. XII*, 973.
- Prays* spp., notes, *Rec. XII*, 69.
- Precipitates, apparatus for filtering and washing, *Rec. IV*, 221; *V*, 539.
- Precipitation—
 - as affected by forests, *Rec. XI*, 718.
 - average hourly, *Rec. IV*, 429.
 - effect on—
 - crop production in Texas, *Rec. VI*, 196.
 - elevation of ground-water surface, *Rec. XI*, 517.
 - level of Great Lakes, *Rec. XI*, 622.
 - excessive, *Rec. IX*, 30.
 - frequency of amounts, *Rec. VI*, 196.
 - measurement, *Rec. XI*, 223.
 - membrane, permeability, *Rec. V*, 649.
 - near the Great Lakes, *Rec. XI*, 429.
 - over the Pacific Northwest, *Rec. XI*, 430.
 - percentage penetrating the soil, *Rec. XI*, 517.
 - relation to plants and soils, *Rec. VI*, 283; *VII*, 373.

- Precis* spp., notes, Rec. XII, 1068.
 Précoce Caplat grape, Rec. IX, 52.
 Pregnancy, effect on pork, Rec. IX, 176.
 Preservative, analyses, Rec. V, 194.
 Preservatives. (*See different kinds.*)
 Preserves, analyses, Rec. XI, 769.
 Press—
 bulletins, Rec. V, 1034.
 notes, Rec. VIII, 175.
 Pressure—
 and suction apparatus, continuous, Rec. IV, 782.
 observations on Mount Washington, Rec. III, 549.
 transmission through plants, Rec. IV, 517.
 Prices, local record, Rec. III, 253.
 Prickly—
 ash, notes, Rec. III, 521.
 comfrey—
 analyses, Bul. 2, I, 181, 214; Bul. 2, II, 124; Rec. II, 329, 435; V, 171; VI, 294; VII, 296; IX, 833.
 culture experiments, Bul. 2, I, 124, 174, 190; Bul. 2, II, 124; Rec. I, 89; V, 171; VI, 39, 405, 661; VII, 295; VIII, 124, 401; IX, 243.
 digestibility, Bul. 2, I, 181.
 field experiments, Rec. II, 667; VII, 209.
 for pigs, Rec. II, 284, 735; IV, 262.
 notes, Bul. 2, I, 164, 214; Rec. II, 594, 601, 667; VI, 294; XI, 1032; XII, 329.
 varieties, Rec. I, 143.
 v. red clover for forage, Rec. II, 435.
 gooseberry, notes, Rec. III, 522.
 lettuce—
 distribution in United States, Rec. VII, 588.
 eradication, Rec. XI, 749.
 notes, Rec. IV, 414; VI, 224, 551, 640; VII, 135, 588; VIII, 703, 794; X, 760; XII, 350.
 pear—
 analyses, Bul. 2, I, 187; Rec. VIII, 331; XI, 314; XII, 55, 677.
 culture and uses, Rec. IX, 981.
 destruction with sodium arsenite, Rec. V, 353.
 eradication, Rec. XII, 253.
 feeding value, Bul. 2, I, 187; Rec. VIII, 596.
 for cattle, Rec. IX, 275.
 pigs, Rec. VIII, 822.
 in New South Wales, Rec. X, 757.
 notes, Rec. VIII, 306; X, 343.
 treatment with arsenical sprays, Rec. XI, 651.
 tarweed, notes, Rec. III, 598.
 Primrose, evening—
 analyses, Rec. III, 629.
 notes, Rec. III, 598; V, 398, 399.
 root system, Rec. IV, 46.
 Primula—
 auricula, culture, Rec. XII, 754.
 obconica—
 notes, Rec. IX, 141.
 poisoning by, Rec. VII, 749.
 poisonous properties, Rec. V, 62.
 Primulas—
 Alpine, Uromyces, Rec. IX, 852.
 Chinese—
 Botrytis disease, Rec. X, 155.
 breeding, Rec. XI, 453.
 culture and varieties, Rec. IX, 141.
Pringleochloa stolonifera, notes, Rec. VII, 748.
 Printing, solandi, Rec. VI, 486, 487, 785.
Prionoxystus—
 querciperda, notes, Rec. VIII, 146.
 robinix, notes, Rec. IX, 964, 1065; X, 164; XII, 975.
Prionus—
 laticollis, notes, Rec. III, 705; IV, 839; IX, 964.
 spp., notes, Rec. III, 586.
 Prison dietaries in Scotland, Rec. XI, 575.
Pristiphora grossularia, notes, Rec. III, 46, 313; VIII, 69, 146.
 Privet—
 anthracnose, Rec. IV, 836.
 California, fertilizer experiments, Rec. XII, 557.
 notes, Rec. IV, 655.
 Polish, notes, Rec. IV, 655.
 Russian, notes, Rec. III, 788.
Procharodes nubilata, notes, Rec. VI, 312.
Proconia undata, notes, Rec. II, 318.
Proceris americana, notes, Bul. 2, I, 177; Rec. II, 101; III, 175; V, 992; VIII, 904; X, 458.
Proctotrypes sp., notes, Rec. IX, 965.
 Proctotrypidæ, monograph of North American, Rec. V, 740.
Procyon lotor, notes, Rec. X, 25.
 Procyonidæ in Idaho, Rec. III, 184.
Prodenia—
 commelinæ, notes, Rec. VIII, 1002; IX, 370; X, 972.
 flavimedia, notes, Rec. IX, 370.
 lineatella, notes, Rec. IV, 839.
 littoralis, notes, Rec. VIII, 712, 1002; XI, 563.
 Prodenia, sweet potato, remedies, Rec. X, 972.
Prodoxus—
 cincereus, notes, Rec. V, 327.
 coloradensis, notes, Rec. V, 327.
 intermedius, notes, Rec. V, 327.
 intricatus, notes, Rec. V, 327.
 reticulatus, notes, Rec. V, 327.
 Products of condensation of phloroglucin with sugars, etc., Rec. VIII, 286.
 Proenzymes, review of literature, Rec. X, 322.
 Progne butterfly, notes, Rec. VIII, 69.
 Prolific tree bean, analyses, Rec. II, 329.
 Promotion for merit, Rec. X, 124.
Pronuba—
 maculata, notes, Rec. V, 327.
 synthetica, notes, Rec. V, 327.
 yuccasella, notes, Rec. V, 327.
Pronuba, maxillary tentacles, Rec. IV, 668.
 Propagating by cuttings, Rec. VII, 586; VIII, 701.
 Propeptone, effect on digestive ferments, Rec. IX, 1079.
 Propionic acid—
 determination, Haberland's method, Rec. XII, 214.
 effect on germination and growth of peas, Rec. XII, 1009.
 Propolis, use by bees, Rec. XII, 580.

- Prosagrotis vetusta*, notes, Rec. VIII, 65, 241.
Prosagrotis comosus, notes, Rec. XII, 367.
- Proskau, Germany—
 Dairy Institute, report, Rec. V, 261; VII, 339; XI, 788.
 Experiment Station, report, Rec. III, 264.
- Prosopis*—
dulcis, analyses, Rec. XI, 458.
juliflora, notes, Rec. VII, 132; VIII, 306; X, 343.
pubescens, notes, Rec. VIII, 306.
- Prosopis*—
aurantii, notes, Rec. IX, 663.
murtfeldtii, notes, Rec. VI, 562; IX, 663.
- Protargol—
 administration, Rec. XII, 790.
 as an antiseptic, Rec. XII, 194.
 for conjunctivitis and fistula, Rec. XI, 496.
 intravenous injection, Rec. XII, 890.
- Proteid—
 bodies, changes in physical state, Rec. XI, 705.
 derivatives, study, Rec. X, 716.
 formation in plants, Rec. X, 223, 825, 925; XI, 707.
 materials in circulatory system, Rec. XI, 778.
 metabolism—
 as affected by alcohol, Rec. VII, 708.
 in children, Rec. XII, 981.
 plants, Rec. XII, 1012.
 plants as affected by temperature, Rec. XII, 519.
 notes, Rec. XII, 177.
 new, of milk, Rec. X, 782.
 nitrogen, recognition, Rec. XI, 510.
 of adzuki bean, Rec. IX, 518.
 Balsamineae, Rec. IX, 812.
 substances, determination, Rec. IX, 520, 521.
- Proteids—
 as affected by formaldehyde, Rec. XI, 125, 511, 715.
 chlorin for determination of, Rec. IX, 521.
 classification, Rec. X, 116, 412.
 determination in—
 animal products, Rec. X, 820.
 cream, Rec. X, 715.
 solution, Rec. X, 607.
 urine, Rec. VIII, 562.
 vegetable materials, Rec. XII, 819.
 formation in darkness by—
 phænogams, Rec. X, 822.
 plants, Rec. XII, 910.
 wheat during germination, Rec. XII, 216.
 from conifer seeds, cleavage products, Rec. X, 313.
 heat value, Rec. VII, 425.
 in living plants, transformation, Rec. IX, 812.
 plant cells, formation, Rec. VI, 383.
 of asparagus, Rec. IV, 782.
 barley, Rec. VII, 231.
 colostrum, investigation, Rec. X, 382.
 corn kernels, Rec. III, 768; IX, 519.
 cotton seed, Rec. V, 1081; VI, 163, 376.
 cowpea, Rec. V, 489; IX, 517.
 egg white, studies, Rec. XII, 514.
 egg yolk, studies, Rec. XII, 513.
 flaxseed, Rec. IV, 933.
 horse bean, Rec. X, 214, 219.
 kidney bean, Rec. V, 1080; VI, 163, 376.
- Proteids—Continued.
 of lentil, Rec. X, 214, 219.
 lupine seeds, Rec. IX, 514.
 malt, Rec. VIII, 369.
 milk, Rec. V, 950; IX, 222; X, 782.
 milk—
 food value, Rec. XII, 780.
 reagents for, Rec. XII, 19.
 oat kernels, Rec. II, 304, 490; III, 11, 13, 766.
 pea, Rec. VIII, 371; X, 214, 219.
 plants, crystallized, Rec. IV, 934.
 potato, Rec. VIII, 371.
 rye, Rec. VII, 233.
 of seeds—
 composition, Rec. X, 607.
 reformation from metabolism products, Rec. X, 928.
 of soy beans, Rec. X, 218, 219.
 sunflower seed, Rec. IX, 516.
 vetch, Rec. VIII, 371; X, 214, 219.
 wheat, Rec. IV, 934; V, 1079; VI, 163, 241; VII, 248, 522, 616.
 of wheat—
 germ, studies, Rec. XII, 512.
 separation, Rec. VIII, 854, 861; IX, 323.
 synthesis by plants, Rec. X, 726.
- Protein—
 amid acid from, Rec. VI, 190.
 as affected by—
 heating, Rec. IX, 808.
 milk sugar, Rec. IX, 275.
 bodies—
 classification, Rec. IX, 480.
 definite compounds, Rec. XI, 310.
 changes in germinating conifers, Rec. VIII, 670.
 cleavage—
 as affected by sodium chlorate, Rec. XI, 483.
 of carbohydrates from, Rec. XI, 813.
 compounds—
 behavior toward aldehyde, Rec. VIII, 285.
 for pigs, Rec. X, 380.
 of arginin, Rec. XI, 511.
 conifer seeds, Rec. IX, 723.
 muscle plasma, Rec. VIII, 619.
 crystalloids, in nutrition of pollen tube, Rec. VII, 750, 838.
 decomposition during germination, Rec. IX, 226; X, 928.
 deficiency in American farm products, Rec. III, 671, 672.
 determination—
 comparison of methods, Bul. 2, II, 59.
 in feeding stuffs, Rec. XI, 418.
 foods, Rec. XI, 418.
 digestibility, Rec. II, 653.
 digestibility, determination, Rec. XI, 418.
 digestion—
 artificial and natural, Bul. 2, II, 44, 59.
 coefficients, Bul. 2, II, 61.
 digestion, chemism, Rec. X, 1089.
 distribution in animal body, Rec. IX, 373.
 effect on milk production, Rec. XI, 577.
 factors for computing, Rec. XII, 1069.
 formation—
 from fat, Rec. XII, 981.
 in plants, Rec. VIII, 566.
 of fat from, Rec. VIII, 71; IX, 480; X, 80.

Protein—Continued.

- in barley, as affected by time of seeding, Rec. IV, 783.
 - bread, digestibility, Rec. XII, 1077.
 - corn, loss in ensiling and field-curing, Rec. IV, 146.
 - crop, as related to nitrogen applied, Rec. V, 579.
 - dry beech leaves, Rec. V, 916.
 - feeding stuffs, Rec. X, 977.
 - feeding stuffs, artificial digestion, Rec. V, 1032; VI, 12.
 - in food—
 - amount required to produce nitrogen equilibrium, Rec. VIII, 70.
 - effect of insufficient supply, Rec. IV, 784.
 - in foods and feeding stuffs, Rec. VIII, 269.
 - foods, determination, Rec. XI, 418.
 - maintenance ration of full-grown animals, Rec. II, 462.
 - muscles, Rec. IX, 808.
 - in plants—
 - as affected by phosphoric acid supply, Rec. IV, 681.
 - reserve, Rec. VI, 387; VII, 655.
 - in resting and working muscles, Rec. IX, 873.
 - seeds of plants, Rec. VIII, 279.
 - tuberculin, Rec. V, 433, 648.
 - Umbelliferae, digestibility, Rec. VI, 12.
 - investigations, Rec. IX, 808.
 - metabolism— (See also NITROGEN METABOLISM.)
 - as affected by borax and boric acid, Rec. IX, 782.
 - affected by milk sugar, Rec. IX, 275.
 - affected by muscular work, Rec. VIII, 149.
 - in plants, Rec. XI, 321.
 - when antipeptone is consumed, Rec. VIII, 331.
 - method for separating constituents, Rec. IX, 723.
 - molecule, carbohydrate group in, Rec. IX, 115.
 - precipitation, chemistry, Rec. IX, 808; X, 116.
 - preparation from solutions, Rec. X, 716.
 - preparations, digestibility, Rec. XI, 184.
 - primary digestion products, Rec. IX, 175.
 - protection by alcohol, Rec. XI, 672.
 - reserve, notes, Rec. XI, 710.
 - substances of seeds, Rec. XII, 1049.
 - synthesis in phanerogams, Rec. XI, 1015.
 - unorganized, active, Rec. V, 252.
 - variation in rations as affecting nitrogen exchange, Rec. IV, 389.
 - wide v. narrow rations, Rec. IX, 799.
- "Proteina," analyses, Rec. V, 66, 195; VI, 153, 331.
- Proteolytic—
- enzym of *Nepenthes*, Rec. XI, 124.
 - ferments in feces, Rec. XII, 477.
- Proteopteryx spoliata*, notes, Rec. III, 54; VIII, 801.
- Protease—
- in *Aspergillus niger*, Rec. XII, 916.
 - of wheat, Rec. VIII, 856.
- Proteoses—
- determination in peptic digestion, Rec. XI, 971.
 - solubility in alcohol, Rec. XII, 108.

Proteosoma, life history, Rec. XI, 658.

Proteus vulgaris in decomposition of urea, Rec. VII, 658.

Protococcus—

- botryoides* on greenhouse plants, Rec. XI, 906.
- caldarium* injuring hothouse plants, Rec. VII, 513.

Protoparce—

carolina—

- fungus diseases, Rec. III, 10.
- notes, Bul. 2, 1, 177; Rec. II, 482; III, 175, 792; VI, 235; VIII, 998, 1002; X, 66, 770, 1060, 1068.
- treatment, Rec. XI, 471.

celeus—

- fungus diseases, Rec. III, 10.
- notes, Rec. II, 14; V, 685; VIII, 321, 998; X, 164, 1068; XI, 871, 952.
- treatment, Rec. XI, 471.

Protoparce, parasites, Rec. X, 1060.

Protophyta, classification of families and genera, Rec. VIII, 565.

Protoplasm—

- and active albumen, studies, Rec. X, 223.
- cell structure, Rec. IX, 726, 1027.
- nucleus, Rec. VI, 115, 506.
- as affected by—
 - anesthetics, Rec. XI, 118.
 - gases, Rec. XI, 120.
- in individual functions, Rec. V, 818.
- plants, Rec. VI, 694.
- karyokinetic spindle and centrosome, studies, Rec. IX, 1092.
- living—
 - as affected by carbon dioxide, Rec. VII, 839.
 - chemistry, Rec. V, 434, 922.
 - energy, Rec. VI, 115; VII, 656; VIII, 470.
 - movement in hyphae of molds, Rec. IX, 812.
 - physiological elements, Rec. IV, 516.
 - properties, Rec. VII, 94.
 - reaction to thermal stimuli, Rec. X, 223, 612.
 - studies, Rec. IX, 522.

Prototypes of fungi, Rec. VII, 563.

Provender, analyses, Bul. 2, 1, 83; XI, 279; XII, 70, 282, 378, 472, 877.

Prune—

- black knot, notes, Rec. IX, 753.
- brown rot, notes, Rec. IX, 753; XI, 371, 466.
- grafted on cherry, Rec. V, 1089.
- industry in Oregon, Rec. IX, 755.
- leaf curl, notes, Rec. IX, 753.
- leaf weevil, notes, Rec. IX, 767.
- rust—
 - notes, Rec. VI, 556; IX, 753.
 - treatment, Rec. VIII, 706.
- twig borer, notes, Rec. IX, 767.

Prunes—

- analyses, Rec. IV, 157, 918; VI, 820; X, 255; XII, 343, 906.
- ash analyses, Rec. XII, 343.
- bloating, Rec. VIII, 979; X, 255.
- California, analyses, Rec. VIII, 691.
- culture, Rec. VI, 728; VIII, 51, 496; IX, 753.
- culture in—
 - Pacific Northwest, Rec. IX, 650.
 - Ukiah Valley, Rec. IX, 51.
- curing in France, Rec. XII, 558.
- dipping, Rec. XI, 446.
- evaporation, Rec. XI, 851.

Prunes—Continued.

- fertilizer for, Rec. XII, 343.
 - fertilizing constituents, Rec. IV, 158, 161, 919.
 - for pigs, Rec. XI, 1046.
 - French, preparation, Rec. VIII, 496.
 - frogging, Rec. VIII, 979; X, 255.
 - insects affecting, Rec. XI, 1064.
 - Italian, culture in Ontario, Rec. VII, 687.
 - notes, Rec. XII, 945.
 - nutritive value, Rec. IV, 160.
 - Oregon, analyses, Rec. IX, 753.
 - proportion of flesh, juice, and pits, Rec. XII, 343.
 - pruning, Rec. IX, 450.
 - stocks for, Rec. II, 218.
 - sulphured, Rec. X, 255.
 - varieties, Rec. IV, 918; V, 586, 587, 870; VI, 820; VIII, 51, 133, 702; X, 254; XI, 251, 1048; XII, 853.
- Pruning—
- apples, Rec. V, 925; IX, 948; X, 45; XI, 54; XII, 54.
 - apricots, Rec. VII, 504; XII, 245.
 - book, Rec. XI, 152.
 - close-root, Rec. IX, 352.
 - currants, Rec. IX, 755.
 - for rose rust, Rec. V, 879.
 - forest trees, Rec. VIII, 604.
 - frozen vines, Rec. VII, 36.
 - fruit trees, Rec. III, 42; IV, 728; VI, 549; VII, 505; IX, 139; X, 1044.
 - grafted vines, Rec. V, 1099.
 - grafting, and budding, Rec. IX, 450.
 - grapes, Rec. IV, 551; VI, 143, 221, 821; VII, 308, 687, 769; IX, 52, 139, 447, 451, 561, 949; X, 355, 440; XII, 247.
 - influence on flowering, Rec. V, 820.
 - notes, Rec. III, 107; X, 552.
 - oaks in midsummer, Rec. VI, 426.
 - orchard fruits, Rec. VI, 821; VII, 771; IX, 246.
 - ornamental plants, Rec. X, 356.
 - peaches, Rec. II, 9; VI, 549; VII, 585; X, 152; XII, 55, 237.
 - plums, Rec. X, 437.
 - principles, Rec. VIII, 792, 985; IX, 51; X, 355; XI, 451.
 - prunes, Rec. IX, 450.
 - raspberries, Rec. IX, 139.
 - root. (See ROOT PRUNING.)
 - roses, Rec. VII, 506, 586, 688; IX, 140; X, 641, 758.
 - shrubs, Rec. VII, 772; XI, 50.
 - street trees, Rec. VII, 506.
 - summer, Rec. XI, 650.
 - supports, notes, Rec. VI, 549.
 - sweet potato vines, Rec. V, 188; VI, 544.
 - timber trees, Rec. VIII, 314.
 - tomatoes, Rec. VI, 51; VII, 122, 686; VIII, 784, 888; IX, 947; XI, 552.
 - trees, Rec. VII, 772, 868.
 - vines at the articulations, Rec. VII, 772.
 - winter, Rec. VIII, 701.
- Prunings, grapevine, fertilizing ingredients, Rec. V, 391.

Prunus— (See also CHERRIES and PLUMS.)

- americana*—
 - as stock for plums, Rec. II, 218.
 - calcium oxalate and lignin in buds, Rec. XII, 910.
 - notes, Rec. II, 355; III, 522; IV, 162, 163; V, 660; VI, 555, 899; VIII, 604; IX, 351.
 - vars., fertilization, Rec. VI, 723.
 - angustifolia*, notes, Rec. IV, 162, 164; VI, 555, 899; IX, 351.
 - armeniaca*, notes, Rec. VI, 899.
 - avium*, notes, Rec. VI, 555.
 - besseyi*, notes, Rec. VI, 421.
 - caroliniana*, notes, Rec. IV, 165.
 - cerasifera*, notes, Rec. IX, 351.
 - cuneata*, notes, Rec. IV, 165.
 - demissa*, notes, Rec. III, 522; IV, 165; VI, 555.
 - domestica*—
 - early botanical views, Rec. X, 640.
 - notes, Rec. II, 355; VI, 555, 899; IX, 351.
 - hortulana*, notes, Rec. IV, 162, 163; V, 660; VI, 555, 899; IX, 351.
 - humilis*, notes, Rec. V, 652.
 - ilicifolia*, notes, Rec. IV, 165.
 - japonica*—
 - gummosis, notes, Rec. XII, 156.
 - notes, Rec. IV, 656.
 - maacki*, notes, Rec. III, 788.
 - maritima*, notes, Rec. IV, 162, 164; VI, 555; IX, 352.
 - mume*, notes, Rec. VI, 899.
 - myrobalana*, notes, Rec. VII, 870.
 - nigra*, notes, Rec. VI, 555.
 - padus*—
 - notes, Rec. III, 788; V, 530.
 - sclerotium disease, Rec. VII, 311.
 - pensylvanica*—
 - as stock for cherries, Rec. II, 218.
 - notes, Rec. IV, 165, 655; VI, 555.
 - persica*, notes, Rec. VI, 555.
 - pissardii*, notes, Rec. VI, 899; VIII, 314.
 - pseudo-cerasus*, *hexenbesens*, Rec. VII, 311.
 - pumila*—
 - as stock for cherries, Rec. II, 218.
 - notes, Rec. III, 230, 522; IV, 165; VI, 421, 555; IX, 841.
 - serotina*, notes, Rec. II, 663, 741; III, 522; IV, 165, 655; VI, 555; X, 516.
 - simonii*, notes, Rec. IV, 916; VI, 899; IX, 351.
 - subcordata*, notes, Rec. II, 372; IV, 162, 164; V, 589; IX, 351.
 - triflora*, notes, Rec. VI, 555, 899; IX, 351.
 - triloba*, notes, Rec. III, 788.
 - virginiana*, notes, Rec. III, 522; IV, 165, 655; VI, 555; VIII, 604.
 - watsoni*, notes, Rec. IX, 351.
- Prunus—
- spraying for shot-hole effect on, Rec. XI, 757.
 - variations in American species, Rec. XII, 239.
- Prussia agricultural schools, Rec. V, 262.
- Psalliota*, n. sp., notes, Rec. XI, 709.
- Psamma arenaria*, notes, Rec. VI, 415.
- Psenocerus supernotatus*, notes, Rec. II, 333; IV, 416.
- Pseudalius oris*, notes, Rec. X, 594.
- Pseudococcus acris*, notes, Rec. VI, 739; VIII, 146, 904; IX, 664; X, 1060.

- Pseudococcus*, maple, **Rec. X**, 457.
Pseudocommis, investigations, **Rec. X**, 912.
Pseudocommis vitis—
 as a cause of leaf curl of potatoes, **Rec. IX**, 457.
 distribution, **Rec. X**, 59, 259.
 in bulb disease of crocus, **Rec. X**, 59.
 diseases of chestnut and palm, **Rec. X**, 59.
 notes, **Rec. IX**, 149, 363; **XI**, 59, 466.
 on chestnut trees, **Rec. IX**, 960.
Elodea canadensis, **Rec. IX**, 251.
 marine plants, **Rec. IX**, 457.
Pseudohaiza eglanterina, notes, **Rec. II**, 116.
Pseudomonas—
campestris—
 investigations, **Rec. XII**, 654.
 notes, **Rec. IX**, 847, 849; **X**, 456.
stewartii—
 notes, **Rec. X**, 862; **XI**, 751.
 on sweet corn, **Rec. X**, 1051.
Pseudoneuroptera—
 of Italy, **Rec. X**, 167.
 Scandinavia, synopses and description,
Rec. VII, 45.
Pseudopeziza—
medicaginis—
 as a cause of alfalfa leaf spot, **Rec. X**, 58.
 notes, **Rec. X**, 263; **XII**, 566.
trifolii on clover, **Rec. IX**, 959.
Pseudophilippia, n. gen., **Rec. IX**, 471.
Pseudophilippia quaintancii, n. sp., notes, **Rec. IX**,
 471.
Pseudorabies, notes, **Rec. X**, 296.
Pseudoscabies of sheep, **Rec. XII**, 95.
Pseudotsuga—
douglasii—
 ash analyses, **Rec. XII**, 653.
 destruction by *Pestalozzia funerea*, **Rec. V**,
 926.
 notes, **Rec. II**, 143; **VI**, 143; **VII**, 965; **XI**,
 747.
taxifolia—
 germination experiments, **Rec. V**, 61.
 notes, **Rec. IV**, 655.
Pseudotubercle bacillus in milk, **Rec. XII**, 1080.
Pseudotuberculosis—
hominis streptotricha, notes, **Rec. IX**, 693.
 notes, **Rec. XII**, 96.
 of sheep, **Rec. X**, 192.
 researches on, **Rec. V**, 1101.
Psila rosæ—
 notes, **Rec. VI**, 740; **VIII**, 911; **X**, 65, 866; **XI**,
 863; **XII**, 368, 467, 973.
 remedies, **Rec. XI**, 559.
Psilura monacha. (See LIPARIS MONACHA.)
Psindia fenestralis, notes, **Rec. IX**, 574.
Psittacosis, notes, **Rec. XI**, 793.
Psoa maculata, notes, **Rec. III**, 812.
Psocinella slossonæ, n. sp., notes, **Rec. XII**, 166.
Psocus gossypii, n. sp., notes, **Rec. VI**, 563.
Psoralea glandulosa, notes, **Rec. VI**, 722.
Psoroptes—
bovis, notes, **Rec. VII**, 315.
communis ovis. (See SHEEP SCAB.)
 Psychrometer—
 applicable to study of transpiration, **Rec. X**,
 417.
 studies, **Rec. VI**, 702; **VII**, 475.
 Psychrometric tables, **Rec. XII**, 1015.
Psylla—
mali, notes, **Rec. V**, 740; **X**, 65.
obsoleta, n. sp., description, **Rec. XII**, 1069.
pyricola. (See PEAR-TREE PSYLLA.)
pyrisuga, notes, **Rec. III**, 414.
tripunctata, notes, **Rec. IV**, 839.
 Psyllid, injury to persimmons, **Rec. X**, 570.
 Psyllidæ, notes, **Rec. XI**, 476.
Psylliodes—
attenuata, notes, **Rec. XII**, 1060.
punctulata, notes, **Rec. X**, 61; **XII**, 266.
Psyllobora 20-maculata, notes, **Rec. I**, 292; **VI**, 741.
Ptelea trifoliata, notes, **Rec. IV**, 656.
 Pteridophyta and Spermatophyta of northeastern
 America, **Rec. VI**, 786.
 Pteridophytes—
 and phanerogams, North American, **Rec. V**, 90.
 chromatin reduction and tetrad formation,
Rec. VIII, 867.
 North American, index of new species, **Rec.**
IV, 374.
 of West Virginia, **Rec. IV**, 642.
 western Texas, **Rec. III**, 103; **IV**, 84; **VI**, 114.
Pteris—
aquilina, notes, **Rec. III**, 598; **IV**, 47; **X**, 121.
tremula, notes, **Rec. IX**, 141.
Pterocarpus—
draco, tannin from, **Rec. VII**, 530.
marsupium, notes, **Rec. VII**, 146.
Pteromalus—
calandraræ, notes, **Rec. IX**, 855.
puparum, notes, **Rec. I**, 41; **II**, 116; **VII**, 144.
 sp., notes, **Rec. V**, 312.
vanessæ, notes, **Rec. II**, 116.
Pteronius ribesii, notes, **Rec. XI**, 952.
 Pterophoridae of North America, **Rec. X**, 366.
Pterophorus—
galactodactylus, notes, **Rec. XII**, 167.
monodactylus, notes, **Rec. XI**, 62.
Pterostichus lucublandis, notes, **Bul. 2**, **I**, 170.
Ptilinus—
pectinicornis, notes, **Rec. VI**, 742; **VIII**, 809.
ruficornis, notes, **Rec. X**, 168.
 Ptinid beetle, **Rec. X**, 62.
Ptinus—
brunneus, notes, **Rec. IV**, 354; **IX**, 65.
fur, notes, **Bul. 2**, **II**, 92; **Rec. IX**, 65, 858.
pubens, n. sp., diagnosis, **Rec. IX**, 468.
superbus, n. sp., diagnosis, **Rec. IX**, 468.
 Ptomaine, extraction of a new, **Rec. V**, 922.
 Ptomaines—
 from *Micrococcus tetragenus*, **Rec. IV**, 315.
 in cheese, **Rec. IV**, 784.
 cheese of bacterial origin, **Rec. V**, 1047.
 studies, **Rec. V**, 728.
Ptychodes trilineatus, notes, **Rec. III**, 318.
 Public—
 domain of the United States, **Rec. XI**, 497.
 lands and their water supply, **Rec. VIII**, 37.
 parks, purpose, **Rec. IX**, 140.
 schools—
 agriculture in, **Rec. IV**, 697.
 meteorological observations at, **Rec. XI**,
 819.
 of New York City, instruction in cooking,
Rec. XI, 79.

Publications, style and form, Rec. III, 760, 761.

Puccineæ, structure and pedicel of teleutospores, Rec. VI, 115; VII, 925.

Puccinia—

acidii-leucanthemi, n. sp., notes, Rec. IX, 852.

ægopodii, notes, Rec. XI, 468.

agropyri, notes, Rec. III, 810.

agrostidis, notes, Rec. XI, 468.

amphigena, notes, Rec. VII, 513.

arenariae, notes, Rec. V, 399.

aristida, notes, Rec. IV, 956.

arrhenatheri, notes, Rec. VIII, 898; IX, 149; X, 1057.

asparagi. (See ASPARAGUS RUST.)

bartholomewii, notes, Rec. IV, 620.

berkeleyi, notes, Rec. XII, 359.

bistorta, notes, Rec. VII, 513; VIII, 566.

bullata, notes, Rec. III, 885; IX, 457.

buxi, notes, Rec. XII, 462.

cari-bistorta, notes, Rec. XI, 360.

carices montanae, n. sp., notes, Rec. IX, 852.

chloridis, notes, Rec. IV, 620.

chrysanthemi. (See CHRYSANTHEMUM RUST.)

clarispora, notes, Rec. VII, 838.

coronata—

as a cause of wheat rust, Rec. I, 204.

culture experiments, Rec. VI, 147; VII, 563.

notes, Rec. II, 482; IV, 50, 415; V, 497; VI, 432, 559; VII, 224, 225; IX, 149, 363; X, 316; XI, 943; XII, 254, 461.

coronifera—

culture experiments, Rec. VI, 147.

notes, Rec. IX, 363; X, 316.

convolvuli, notes, Rec. IV, 50.

crandallii, n. sp., notes, Rec. XI, 361.

cretica, parasitic on *Cressa cretica*, Rec. VIII, 898.

digraphidis—

culture experiments, Rec. VI, 147.

notes, Rec. VII, 224; IX, 149.

dioicae, notes, Rec. XI, 468.

dispersa—

notes, Rec. IX, 362; X, 316.

n. sp., notes, Rec. VI, 432.

sources of origin, Rec. XI, 554.

studies, Rec. XII, 567.

emaculata, notes, Rec. IV, 50.

festucæ—

culture experiments, Rec. VI, 147.

notes, Rec. VII, 224.

galanthi, notes, Rec. IX, 852.

glumaris, studies, Rec. XII, 567.

glumarum, notes, Rec. VI, 311, 432; X, 316; XI, 259; XII, 461.

graminis—

as a cause of wheat rust, Rec. I, 204.

avenæ, notes, Rec. XI, 943.

notes, Rec. II, 482; III, 172, 871; IV, 50, 415; V, 497; VI, 58, 224, 432, 559; VII, 39; IX, 759; X, 316; XII, 254, 461.

secalis, notes, Rec. XI, 943.

treatment, Rec. III, 787.

tritici, notes, Rec. XI, 943.

harioti, notes, Rec. X, 865.

helianthi, notes, Rec. IV, 50; X, 260.

hemizoniæ, notes, Rec. III, 327.

Puccinia—Continued.

heterogenea, n. sp., notes, Rec. III, 328.

hieracii—

notes, Rec. X, 455, 971; XI, 947; XII, 1054.

on Compositæ, Rec. V, 257.

ligustici, notes, Rec. VII, 278.

liliacearum, cytology of teleutospores, Rec. XI, 1015.

lycii, notes, Rec. X, 451.

malvacearum—

notes, Rec. II, 504, 599; III, 161, 307; VI, 436; VIII, 412; IX, 1061; X, 448, 455.

remedies, Rec. III, 403.

maydis, notes, Rec. IV, 414.

menthae, notes, Rec. IV, 50; V, 741.

microica, notes, Rec. IV, 956.

mirabilissima, notes, Rec. VII, 277.

molinæ—

culture experiments, Rec. VI, 147.

notes, Rec. XI, 360.

montanensis, notes, Rec. IV, 956.

nesææ, notes, Rec. VII, 513.

notabilis, n. sp., Rec. VI, 1000.

anotheræ, notes, Rec. V, 592.

orchidearum phalaridis, notes, Rec. XI, 360.

oxalidis, notes, Rec. VII, 513.

pallida, notes, Rec. IV, 956.

paspali, n. sp., Rec. VI, 1000.

peckiana, notes, Rec. V, 876, 926; VI, 832.

persistans, notes, Rec. XII, 462.

phlei-pratensis—

notes, Rec. X, 316.

n. sp., notes, Rec. VI, 146, 432.

polygoni, notes, Rec. IV, 50; XI, 360.

polysora, notes, Rec. VIII, 671.

prenanthi, notes, Rec. IV, 50.

pruni, notes, Rec. IV, 50; VI, 556, 558; IX, 753.

pruni-spinosæ, notes, Rec. II, 32; III, 217, 810.

redfieldiæ, notes, Rec. IV, 956.

ribis—

in Scotland, Rec. VI, 233.

notes, Rec. X, 969.

rubigo-vera—

as a cause of wheat rust, Rec. I, 204.

notes, Rec. III, 10; IV, 50, 415; V, 497; VI, 59, 224, 559; XII, 254.

on *Lycopsis arvensis*, Rec. VI, 233.

treatment, Rec. III, 787.

rubigo-vera tritici, notes, Rec. XI, 463, 943.

secalis, notes, Rec. XI, 943.

serjaniæ, notes, Rec. VIII, 671.

sessilis, notes, Rec. VIII, 108.

simplex—

notes, Rec. VI, 432; X, 316; XII, 461, 567.

n. sp., notes, Rec. XI, 709.

smilacæarum digraphidis, notes, Rec. XI, 360.

sorghii, notes, Rec. XI, 943.

spp., in Ohio, Rec. IV, 414.

stipæ, notes, Rec. IV, 50.

suaveolens—

notes, Rec. VI, 823; VII, 689.

on the Canada thistle, Rec. V, 62.

subcollapsa, notes, Rec. IV, 956.

suksdorfii, notes, Rec. III, 810.

sylvatica—

culture experiments, Rec. VII, 411.

notes, Rec. VIII, 108.

Puccinia—Continued.

- tanacetii*, notes, Rec. IX, 656; X, 648.
taraxaci, notes, Rec. IV, 50.
tecta, notes, Rec. VII, 838.
traillii, culture experiments, Rec. VI, 147.
transformans, notes, Rec. VIII, 671.
trititica—
 sources of origin, Rec. XI, 554.
 studies, Rec. XII, 567.
violæ, notes, Rec. IV, 50.
vossii, notes, Rec. X, 865.
windsorise, variation of teleutospores, Rec. X, 561.
winterani, notes, Rec. VI, 233.
zanthii, notes, Rec. IV, 50.

Puccinia—

- and *Phragmidium*, relation between, Rec. II, 455.
 appearance on *Phalaris arundinacea*, Rec. V, 1100.
 new species on *Polemonium caruleum*, Rec. VIII, 706.

Puccinias on *Compositæ*, Rec. XI, 949.*Pulex*— (See also FLEAS.)

- bruneri*, notes, Rec. IX, 254.
coloradensis, notes, Rec. IX, 254.
fasciatus, notes, Rec. IX, 254.
gigas, notes, Rec. IX, 254.
gillettei, notes, Rec. IX, 254.
goniocephalus, notes, Rec. IX, 254.
hirsutus, notes, Rec. IX, 254.
howardi, notes, Rec. IX, 254.
ignota, notes, Rec. IX, 254.
inæqualis, notes, Rec. IX, 254.
irritans, notes, Rec. IX, 254.
longispinus, notes, Rec. IX, 254.
montanus, notes, Rec. IX, 254.
pallidus, notes, Rec. VI, 742.
sciurorum, notes, Rec. IX, 254.
serraticeps, notes, Rec. VIII, 64; IX, 62, 254; X, 766.
simulans, notes, Rec. IX, 254.
wickhami, notes, Rec. IX, 254.

Pulex, bibliography, Rec. XII, 867.*Pulicidæ*, systematic position, Rec. XI, 173.*Pullets*. (See CHICKENS and HENS.)*Pulque*, analyses, Rec. VIII, 427.*Pulvinaria*—

- acericola*—
 natural enemies, Rec. XII, 160.
 notes, Rec. X, 1060; XII, 160, 860.
camellicola, studies, Rec. XI, 1066.
innumerabilis— (See SCALE, COTTONY MAPLE.)
innumerabilis occidentalis, notes, Rec. X, 869.
 spp., notes, Rec. XII, 369.

Pulvinaria, western, Rec. X, 869.*Pumpkin*— (See also CUCURBITO PEPO.)

- beetle, banded, notes, Rec. VII, 792.
 canned, analyses, Rec. V, 220.
 germination experiments, Rec. V, 628.
 seed cake, Rec. V, 654.
 seed cake, digestibility, Rec. VII, 796.
 seed, lecithin content, Rec. V, 803.
 vines, herbaceous grafting, Rec. II, 508.

Pumpkins—

- analyses, Rec. IV, 59; VIII, 512; IX, 129; XI, 249.

Pumpkins—Continued.

- cooked *v.* uncooked for pigs, Rec. XI, 967.
 cross fertilization, Rec. II, 509.
 crossing, Rec. V, 982.
 culture, Rec. IX, 357.
 culture experiments, Rec. VII, 120, 121, 125.
 fertilizer formula, Rec. XII, 851.
 for cows, Rec. XI, 1081.
 pigs, Rec. X, 674.
 Montherly bronzed, Rec. V, 1099.
 notes, Rec. X, 254, 547.
 varieties, Bul. 2, II, 89; Rec. I, 254; II, 349, 392, 396; III, 85; IV, 352; V, 871, 881; VII, 35, 405; VIII, 889, 975; IX, 832; XI, 51, 251, 631; XII, 329.

Pumps—

- apparatus for testing, Rec. XII, 197.
 filter, Rec. VIII, 100.
 irrigation in Kansas, Rec. VI, 346.
 modification of Bunsen vacuum, Rec. XII, 419.
 spraying—
 cyclone, Rec. XII, 263.
 kerosene attachment for, Rec. VI, 346, 442, 910, 1008; VIII, 414.
 tests, Rec. XI, 172.
 test, Rec. XI, 197.
 water pressure, Rec. XII, 309.

Punic bees, test, Rec. V, 102.*Purdue School of Agriculture*, notes, Rec. V, 825.*Purdue University*, fire at, Rec. V, 658.*Pure culture*—

- methods, Rec. V, 435.
 of varieties of grain, Rec. V, 818.

Pure cultures—

- for cheese making, Rec. IX, 92, 388, 689; X, 688, 996; XI, 283, 296.
 fermentation of apple and grape must, Rec. IV, 517.
 ripening cream, Rec. II, 261, 931; III, 653; IV, 75, 223, 381, 987; VII, 68, 253; VIII, 261, 441; IX, 83, 383, 490, 589; XII, 983.
 in wine making, Rec. XI, 126.
 of yeast, investigations, Rec. IV, 517.
 preparation and use, Rec. XI, 87, 714.
 relation to quality of butter, Rec. VIII, 441.

Pure-food law—

- in Connecticut, Rec. XI, 769.
 working, Rec. XII, 898.

Purification of cane juice, Rec. VII, 719.*Purifine*, composition and antiseptic value, Rec. XII, 991.*Purple*—

- smartweed, notes, Rec. X, 1048.
 top, analyses, Bul. 2, I, 108.
 vetch, poisoning by, Rec. VII, 252.

Purplish-red borer, notes, Rec. XI, 564.*Purslane*—

- analyses, Rec. II, 491; X, 275, 835; XI, 1008.
 bug, notes, Rec. III, 784.
 cotton, notes, Rec. X, 343.
 for pigs, Rec. XII, 876.
 mold, notes, Rec. IV, 51.
 notes, Rec. III, 308; V, 529; X, 343; XI, 354; XII, 798.
 root system, Rec. IV, 46.
 sawfly, notes, Rec. XI, 871.

Purslane—Continued.

- shading, Rec. XI, 739.
- sheep, culture experiments, Rec. X, 244.
- studies, Rec. XI, 1068.
- water, notes, Rec. X, 343.
- white rust, notes, Rec. XII, 254.

Putnam scale. (See SCALE, PUTNAM.)

Putorius—

- erminea*, notes, Rec. VI, 695.
- vulgaris*, notes, Rec. VI, 695.

Putrefaction—

- chemical nature, Rec. III, 748.
- intestinal—
 - as affected by milk sugar, Rec. IX, 275.
 - studies, Rec. IX, 88.
- liberation of nitrogen, Rec. IV, 875.

Pyæmia, bacteriological examination of blood, Rec. V, 927.

Pycnidia of a Phyllosticta, development, Rec. V, 401.

Pycnoderes quadrimaculatus, notes, Rec. XII, 365.

Pycnometer—

- improved, Rec. VIII, 862.
- new form, Rec. VIII, 862.

Pygæra nigra, notes, Rec. VII, 231.

Pyocyanase, effect on bacteria, Rec. XII, 490.

Pyocyanic bacillus, production of various pigments, Rec. X, 322.

Pyocyanogenic bacteria, influence of atmospheric agents on, Rec. V, 729.

"Pyrale," remedies, Rec. IX, 465, 776.

Pyralid—

- notes, Rec. V, 101.
- of the osage orange, notes, Rec. IV, 668.

Pyralidæ—

- classification, Rec. VIII, 808.
- experiments against, Rec. VIII, 712.
- notes, Rec. XI, 767.

Pyralidina of Death Valley, Rec. V, 900.

Pyralis—

- costalis*. (See CLOVER-HAY WORM.)
- farinalis*, notes, Rec. VI, 313; VII, 515; VIII, 241, 610; IX, 65; X, 273.

Pyramis—

- atalanta*, notes, Rec. III, 318.
- cardui*, notes, Rec. X, 974.

Pyrausta—

- ferrugalis*, notes, Rec. X, 66.
- rantalis*, notes, Rec. IX, 370.
- theseusalis*, notes, Rec. X, 973.

Pyrenomycetes—

- evolution of spores, Rec. IX, 61.
- history and development, Rec. I, 169 170.
- natural classification, Rec. V, 818.

Pyrenomycetes sp., notes, Rec. VII, 94.

Pyrenophora trichostoma, notes, Rec. XII, 567.

Pyrethro-kerosene emulsion, preparation and use, Rec. V, 593.

Pyrethrum—

- analyses, Rec. V, 171.
- and copper acetate for grapevine beetle, Rec. IX, 262.
- and kerosene emulsion—
 - for cotton worm, Rec. II, 318.
 - preparation, Rec. III, 291, 327.
- as an insecticide, Rec. I, 45; II, 63, 416, 720; IV, 475, 932; V, 62, 63, 64; VII, 592.

Pyrethrum—Continued.

- culture experiments, Rec. V, 171; X, 244.
- for animal parasites, Rec. V, 517.
- cabbage caterpillars, Rec. IV, 865.
- cabbage worm, Rec. II, 323.
- celery caterpillars, Rec. V, 686.
- cotton-boll worms, Rec. IV, 204.
- grapevine leaf beetle, Rec. VIII, 1003.
- hornflies, Rec. V, 63.
- rose chafers, Rec. III, 171.

plant, notes, Rec. V, 577.

preparation and use, Rec. II, 659; IV, 173, 840; V, 206; VII, 231, 593; XI, 174.

tea as an insecticide, Rec. II, 720.

Pyrethrum—

- cinerarifolium*, notes, Rec. II, 372.
- inodorum*, notes, Rec. IX, 956.
- roscum*, notes, Rec. II, 372, 580; IV, 654.

Pyrogallol solution for determination of oxygen, Rec. VIII, 667.

Pyromorpha dimidiata, notes, Rec. IX, 966.

Pyromorphite, analyses, Rec. XI, 230.

Pyrophila pyramidoides, notes, Rec. II, 654; IV, 839.

Pyrophosphate, platinic, formation, Rec. VII, 272.

Pyrophosphates—

- alkaline, volumetric determination, Rec. V, 344.
- of magnesium, studies, Rec. IX, 323.

Pyrophosphoric acid—

- and metaphosphoric acid, separation, Rec. IV, 387.
- determination, Rec. IX, 322.
- in cotton-seed meal, Rec. IV, 901.
- superphosphates, determination, Rec. X, 19.
- volatility, Rec. V, 695.

Pyrosoma bigeminum. (See TEXAS FEVER.)

Pyrrharcia isabella, notes, Rec. IV, 838.

Pyrrhocoris apterus—

- coloring matter of, study, Rec. VI, 152.
- study, Rec. XI, 657.

Pyrrhopappus carolinianus, analyses, Rec. VIII, 520.

Pyrus—

americana—

- as host of Gymnosporangium, Rec. II, 712.
- notes, Rec. IV, 655; VII, 134; VIII, 604.

aucuparia, notes, Rec. IV, 655; VII, 134.

baccata—

- as a stock, Rec. XI, 451, 848, 850.
- varieties, Rec. XI, 848.

cathayensis, notes, Rec. VI, 900.

coronaria, notes, Rec. III, 522; IV, 655

communis, notes, Rec. IX, 363.

japonica, notes, Rec. IV, 656.

malus chinensis, wart-like outgrowth, Rec. XII, 1056.

prunifolia—

- as a stock for apples, Rec. XI, 850.
- varieties, Rec. XI, 848.
- salicifolia*, chemistry of development, Rec. IV, 449.

Pythisma spp. and allied fungi, notes, Rec. V, 926.

- Pythium de baryanum*, notes, Rec. III, 161; V, 192, 309, 400; VIII, 899; XI, 163, 757; XII, 218, 261, 458.
- Pythium, swarm spores, Rec. VI, 487.
- Quack grass. (See COUCH GRASS.)
- Quails v. potato bugs, Rec. IV, 668.
- Quaker—
 feeds, analyses, Rec. XII, 70.
 oats, analyses, Rec. VII, 803; VIII, 719; XII, 169.
 self-raising buckwheat flour, analyses, Rec. VII, 336.
- Quaking asp, notes, Rec. III, 521.
- Quarantine—
 against—
 scale insects in California, Rec. IV, 284.
 injurious insects in California, Rec. VI, 741.
 compulsory, for animals, Rec. XI, 591.
 experiments with pigs, Rec. VIII, 253.
 in horticulture, notes, Rec. VI, 729.
 laws—
 for live stock, suggestions, Rec. XI, 91.
 in the East, Rec. VI, 739.
 officer of California, report, Rec. X, 375.
- Quassia—
 and soap for hop louse, Rec. V, 206.
 as an insecticide, Rec. V, 206.
 chips for orchid bug, Rec. XI, 174.
 for rose chafer, Rec. III, 171.
 v. kerosene for hop louse, Rec. IV, 84.
 wash v. kerosene emulsion, Rec. IV, 284.
- Quassia gabonensis*, copper content, Rec. XI, 1012.
- Quebracho wood, ash analyses, Rec. X, 219.
- Queensland—
 Department of Agriculture, Rec. II, 768; III, 70, 270, 436, 580, 753.
 fruit fly, notes, Rec. XI, 563.
 nut, notes, Rec. VIII, 231.
- Quercus*—
alba. (See OAK, WHITE.)
coccinea, notes, Rec. III, 521; IV, 655; IX, 844.
garryana, notes, Rec. VII, 278.
ilicifolia, notes, Rec. III, 521.
imbricaria, notes, Rec. III, 521; VIII, 314; IX, 844.
lobata—
 in California, Rec. IX, 452.
 growth on alkali soil, Rec. VIII, 702.
macrocarpa, notes, Rec. II, 741; III, 521; IV, 655; VIII, 604.
muhlenbergii, notes, Rec. III, 521.
nigra, notes, Rec. II, 741; III, 521.
obtusiloba, ash analyses, Rec. I, 26.
occidentalis, notes, Rec. VI, 821.
palustris, notes, Rec. VIII, 314; IX, 844.
pedunculata—
 notes, Rec. XII, 958.
 varieties, Rec. XI, 855.
phellos, notes, Rec. VIII, 314; IX, 844.
prinoides, notes, Rec. III, 521.
robur, rate of growth, Rec. XII, 1048.
rubra. (See OAK, RED.)
sessiliflora, notes, Rec. XII, 958.
 spp., notes, Rec. VIII, 231.
stellata, notes, Rec. III, 521.
suber, notes, Rec. VI, 821; XI, 747.
- Quercus*—Continued.
tinctoria, notes, Rec. IX, 844.
velutina, notes, Rec. VIII, 314.
- Quercus*, life history, Rec. XII, 313.
- Quickens grass, notes, Rec. X, 432.
- Quicklime, effect on root tubercles of legumes, Rec. XII, 548.
- Quill weed, analyses, Rec. III, 629.
- Quince—
 black rot—
 notes, Rec. IV, 401, 656, 658; V, 878; IX, 762.
 treatment, Rec. IV, 929.
 tch—
 notes, Rec. IV, 657.
 undetermined species, Rec. IV, 401.
 borer, notes, Rec. VI, 900; XI, 760.
 crown gall, notes, Rec. IX, 762.
 curculio, notes, Rec. III, 313; V, 402; VI, 900; X, 565; XI, 173.
 decay, notes, Rec. V, 401.
 diseases—
 fungicides for, Rec. IV, 658.
 in the Hudson Valley, Rec. XII, 155.
 nature and treatment, Rec. IV, 400, 656.
 fire blight, notes, Rec. VI, 900.
 fruit spot, notes, Rec. IV, 401, 656.
 leaf blight—
 investigation, Rec. II, 502.
 notes, Rec. I, 283; III, 114, 846; IV, 658; V, 498; VI, 53, 558, 900; IX, 762; X, 648.
 prevalence, Rec. II, 246.
 treatment, Rec. II, 32; III, 144, 658, 878; IV, 658, 955.
 leaf brownness, treatment, Rec. II, 173.
 leaf miner, notes, Rec. V, 883, 879.
 leaf spot—
 fungicides for, Rec. III, 10, 770.
 nature and treatment, Rec. IV, 500, 658, 929.
 notes, Rec. III, 10, 770; VI, 900; IX, 762; XI, 170.
 treatment, Rec. I, 294; III, 10, 770; IV, 929.
 pale rot, notes, Rec. IV, 401, 656.
 pectin, Rec. XI, 906.
 pollination experiments, Rec. XI, 447.
 ripe rot, notes, Rec. IV, 401, 657.
 rot, treatment, Rec. VI, 234.
 rust—
 notes, Rec. IV, 400, 656; VI, 900; VII, 220, 875; X, 453, 648, 824.
 treatment, Rec. II, 32; X, 871.
 scab, notes, Rec. V, 498, 878.
 sclerotium disease, Rec. XI, 949.
 spot, notes, Rec. II, 482.
 trees—
 new insect on, Bul. 2, I, 154.
 pruning, Rec. XI, 548.
 twig knot, notes, Rec. VIII, 705.
 wood, ash analyses, Rec. X, 232.
- Quinces—
 as host of Gymnosporangium, Rec. II, 712.
 bud development, Rec. XI, 851.
 Chinese, notes, Rec. VI, 900.
 culture in western New York, Rec. VI, 899.
 drying, Rec. XII, 558.
 in western New York, Rec. VIII, 313.
 Japan, notes, Rec. IV, 656.

Quinces—Continued.

- Monilia fructigena* on, Rec. IV, 658.
 notes, Rec. XII, 945.
 Peziza in mummified fruit, Rec. V, 438, 530.
Rhizopus nigricans on, Rec. IV, 658.
 spraying, Rec. V, 684; VII, 138; VIII, 240.
 varieties, Bul. 2, I, 183; Bul. 2, II, 135; Rec.
 I, 229; II, 295, 356, 372, 556, 599, 642, 668; III,
 361, 701; IV, 166, 556; V, 190, 299, 302, 496,
 584, 585, 587, 877; VI, 53, 55, 142, 820, 900;
 VII, 215, 405; VIII, 134, 407, 889; IX, 50, 244,
 353; X, 49, 254; XI, 251, 547; XII, 237.

Quinin, titration, Rec. VIII, 105.

Quiscalus quiscula xeneus, notes, Bul. 2, II, 93.

Quitch grass, notes, Rec. III, 308.

Rabbit—

- cotton-tail, new species of fluke in, Rec. VI, 932.
 fleas, notes, Rec. IX, 254.
 manure, analyses, Rec. VI, 287.
 milk, analyses, Rec. VI, 669.
 plague near Stuttgart, Rec. XI, 428.
 white, notes, Rec. VII, 929.

Rabbits—

and mice injuring young fruit trees, Rec.
 VII, 585.

as affected by rarefied air, Rec. IX, 276.

charbon in, Rec. V, 823.

destruction with chicken-cholera bacillus,
 Rec. XI, 1087.

digestion experiments, Rec. V, 532, 811; IX,
 683; X, 1082, 1083; XII, 666.

epizooty, Rec. XI, 712.

extermination, Rec. IX, 530.

feeding experiments, Rec. XI, 275.

immunization against the streptococcus of
 erysipelas, Rec. VII, 526.

injuring orchards, Rec. VI, 990; X, 963.

jack—

- breeding habits, Rec. X, 24.
 description of species, Rec. X, 23.
 natural enemies, Rec. X, 25.
 protection against, Rec. X, 24.
 remedies, Rec. X, 24.
 statistics of drives and hunts, Rec. X, 25.
 value of, Rec. X, 25.

metabolism experiments, Rec. X, 1083; XI,
 381, 576, 778.

notes, Rec. II, 71; XI, 426.

poisoning with potassium cyanid, Rec. XII,
 423.

remedies, Rec. XI, 372, 428, 659.

repression, Rec. II, 71.

susceptibility to hemorrhagic septicemia of
 poultry, Rec. XII, 990.

tapeworms, Rec. IX, 996.

Rabid animals, antitoxin in bile, Rec. XI, 1092.

Rabies—

and distemper, differentiation, Rec. XI, 896.
 hydrophobia in deer and dogs, Rec. VII,
 805.

bovine, notes, Rec. VII, 66.

control, Rec. XII, 194.

diagnosis, Rec. XII, 395, 692, 894.

diagnostic lesion, Rec. XII, 690.

differential diagnosis, Rec. XI, 985.

etiology, Rec. XII, 793.

immunization by nerve tissue, Rec. XII, 596.

in cattle, Rec. I, 125; XI, 291, 1091.

Rabies—Continued.

in dogs—

- notes, Rec. VII, 805; XII, 488.
 pathology, Rec. XII, 395.

in England, control, Rec. XI, 191.

farm animals, Rec. VI, 843.

Great Britain, Rec. IX, 96.

horses, Rec. XII, 395.

Massachusetts, Rec. XI, 591, 1087.

New York, Rec. XI, 492.

Pennsylvania, notes, Rec. IX, 996; XII, 684.

Washington, D. C., Rec. IX, 893; XII, 395.

inoculation—

experiments with wolves, Rec. X, 597.

for diagnostic purposes, Rec. XI, 1092.

investigations, Rec. X, 296, 999.

notes, Rec. IV, 75; XI, 189, 393, 793, 995; XII,
 685, 692, 789, 885.

prevention, Rec. X, 893.

so-called, in cattle, Bul. 2, I, 111.

studies, Rec. XII, 292, 887.

treatment by injections of normal nerve sub-
 stance, Rec. XII, 491.

virus—

intracerebral inoculation, Rec. XI, 697.

resistance to putrefaction, Rec. XII, 491.

Races in horticulture, Rec. V, 449.

Raccoon, distribution and use, Rec. X, 25.

Racks for curing clover, Rec. IX, 241.

"Radiateur" tests, Rec. VII, 529.

Radiation—

of heat by the soil, Rec. VI, 881.

report on, Rec. XII, 920.

solar, Rec. II, 394; VIII, 755.

terrestrial, Rec. IV, 335; V, 33.

thermometers, observations, Rec. II, 653.

Radiator-separator and churn, Rec. IX, 796.

Radish—

club root, Rec. III, 307.

diseases, notes, Rec. VI, 910; XII, 462.

flies, notes, Rec. VI, 65.

history, Rec. X, 151.

maggot, notes, Rec. III, 198.

maggots, insecticides for, Rec. II, 415.

seed—

germination experiments, Rec. V, 628.

planting at different depths, Rec. VI, 548.

small *v.* large, Rec. XI, 928.

white—

mold, Rec. III, 307.

notes, Rec. IV, 334.

wild—

notes, Rec. III, 598; IX, 956.

root system, Rec. IV, 46.

Radishes—

analyses, Rec. III, 234; X, 250.

and carrots, simultaneous forcing, Rec. X,
 962.

as affected by electric light, Rec. IV, 351; V,
 295.

culture, Rec. IX, 357, 950.

culture experiments, Rec. VI, 296, 405; VIII,
 313, 407.

electroculture, Rec. IV, 351; V, 295.

fertilizer—

experiments, Rec. IX, 556; X, 249; XII,
 747.

formula, Rec. XII, 851.

Radishes—Continued.

- fertilizing constituents removed from soil by, **Rec. X**, 250.
- forcing, **Rec. VIII**, 231; **X**, 354; **XII**, 952.
- germination tests, **Rec. II**, 317.
- growth as affected by—
 - character of seed, **Rec. VII**, 499.
 - incandescent gaslight, **Rec. XII**, 48.
 - size and weight of seed, **Rec. VI**, 487.

Japanese—

- analyses, **Rec. VI**, 331.
- as a feeding stuff, **Rec. VI**, 886.
- notes, **Rec. III**, 598, 599; **X**, 547; **XI**, 850.
- subirrigation, **Rec. V**, 680; **X**, 249; **XI**, 929.
- varieties, **Bul. 2, I**, 105; **Bul. 2, II**, 135; **Rec. I**, 188, 254; **II**, 5, 29, 62, 69, 240, 318, 395, 566, 585, 607, 641; **III**, 30, 609, 622, 724, 791, 807; **IV**, 352, 828; **V**, 189, 291, 783, 785, 983; **VI**, 142, 220, 548; **VII**, 35, 124, 213, 405; **VIII**, 225, 888, 889, 977; **IX**, 351; **X**, 249; **XI**, 51, 250.
- water requirements, **Rec. XII**, 340.

Raffinose—

- determination in molasses from beets and sugar cane, **Rec. X**, 96.
- fermentation by *Saccharomyces pombe*, **Rec. XI**, 715.
- hydrolysis, **Rec. VIII**, 456.
- hydrolysis and utilization by *Penicillium glaucum*, **Rec. XII**, 313.
- in the germs of wheat, **Rec. V**, 819, 1027.
- notes, **Rec. V**, 1026.

Rag dust, analyses, **Rec. III**, 764.

Ragi—

- culture experiments, **Rec. X**, 244.
- tailings as food, **Rec. XI**, 575.

Rags, analyses, **Rec. VII**, 111.

Ragweed—

- analyses, **Rec. II**, 550; **III**, 318, 629.
- great, notes, **Rec. VIII**, 703.
- notes, **Rec. III**, 308, 893; **IV**, 591, 699; **V**, 529; **XI**, 354.
- root system, **Rec. IV**, 47.

Railroad—

- forestry, **Rec. XII**, 456.
- freight classifications, **Rec. XII**, 698.
- statistics, **Rec. XII**, 698.
- ties—
 - metal, **Rec. I**, 109; **VII**, 164; **XI**, 1050.
 - preservation, **Rec. XI**, 1052.
- worms, notes, **Rec. X**, 459.

Railways—

- construction in 1891, **Rec. III**, 632.
- in Mexico, **Rec. VI**, 172.
- Sahara Desert, **Rec. VII**, 290.
- relation to timber resources, **Rec. I**, 110.
- statistics, **Rec. VII**, 259.

Rain—

- and snow gauge, Marvin's, **Rec. XI**, 127.
- soil, effect on forage plants, **Rec. XI**, 32.
- spray, effect on form of leaves, **Rec. VII**, 372, 925.
- artificial, **Rec. XII**, 119.
- causes, **Rec. X**, 616.
- during hurricane at Port Royal, South Carolina, **Rec. X**, 419.
- effect on—
 - pollen, **Rec. I**, 134.
 - sugar cane, **Rec. X**, 929.

Rain—Continued.

- extent of local, **Rec. VIII**, 111.
- gauge and the wind, **Rec. XI**, 819.
- gauges, instruction for use, **Rec. III**, 894.
- gushes in thunderstorms, **Rec. IX**, 531; **X**, 326.
- in Hawaiian Islands, **Rec. X**, 124.
- making experiments, **Rec. III**, 831; **VI**, 196; **VIII**, 672, 676.
- mechanical effect on plants, **Rec. IX**, 330.
- producing processes, **Rec. XI**, 126.
- spore dissemination by, **Rec. VIII**, 670.
- storms, effect on milk production, **Rec. V**, 322.
- water— (*See also* WATER).
 - ammonia in, **Rec. II**, 341; **III**, 82.
 - analyses, **Rec. III**, 362.
 - chlorin in, **Rec. IV**, 522; **V**, 804; **VII**, 486; **VIII**, 964; **IX**, 335, 738; **XII**, 833.
 - composition, **Rec. VI**, 196.
 - for pigs, **Rec. II**, 427.
 - nitrates in, **Rec. III**, 82.
 - nitric acid in, **Rec. II**, 341.
 - nitrogen content, **Rec. VI**, 283, 513; **VIII**, 482; **X**, 315; **XII**, 917.
 - of Java, nitrogen content, **Rec. V**, 539.

Rainbow—

- high, **Rec. X**, 326.
- lunar, **Rec. X**, 124, 419.

Raindrops—

- size and rate of fall, **Rec. IX**, 814.
- studies, **Rec. XII**, 520.

Rainfall— (*See also* PRECIPITATION.)

- and barometric pressure, **Rec. VII**, 474.
- clouds, **Rec. VII**, 287.
- drainage at Rothamsted, **Rec. V**, 345.
- leaf formation, **Rec. V**, 345.
- outflow of Great Lakes, **Rec. X**, 325.
- Peronosporæ, **Rec. I**, 169.
- rivers in Idaho, **Rec. XI**, 819.
- snow in the United States from 1738 to 1891, **Rec. VI**, 874.
- temperature, influence on agriculture, **Rec. VII**, 475.
- annual, of the globe, **Rec. X**, 522, 1020.
- area at high stations, **Rec. XI**, 430.
- as affected by—
 - altitude, **Rec. XII**, 1017.
 - forest clearing and cultivation, **Rec. XI**, 127.
 - forests, **Rec. III**, 926; **V**, 95; **XI**, 718.
 - sunspots, **Rec. XI**, 31; **XII**, 724.
 - surface conditions, **Rec. V**, 95.
- as influenced by the moon, **Rec. IV**, 876; **VI**, 700.
- related to potato rot, **Rec. IX**, 1061.
- at Atlanta, **Rec. XI**, 819.
- La Crosse, **Rec. XII**, 1015.
- catch, as affected by wind, **Rec. XI**, 620, 818.
- distribution in Madras Presidency, **Rec. XII**, 521.
- diurnal variation, **Rec. VIII**, 206.
- effect on—
 - crops, **Bul. 2, II**, 29.
 - leaves, **Rec. VIII**, 205.
 - pollination, **Rec. VI**, 46.
- from convectional currents, **Rec. XII**, 1015.
- hourly average, **Rec. IV**, 429.

Rainfall—Continued.

- in agricultural meteorology, Rec. XI, 127.
- Barbados, Rec. IX, 533; XI, 840.
- British Islands, Rec. X, 124.
- California, Rec. XI, 621.
- Central America, Rec. VI, 879.
- Cuba, Rec. X, 325.
- East Indian Archipelago, Rec. VII, 96.
- England, Rec. XII, 833.
- England in relation to altitude, Rec. XII, 1017.
- European Russia, Rec. VI, 789.
- Grand Duchy of Baden, Rec. XII, 921.
- Great Britain, Rec. X, 124; XII, 122, 834.
- Hawaiian Islands, Rec. VI, 876.
- India, Rec. VI, 621; IX, 122.
- Jamaica, Rec. VI, 621; XII, 521.
- local storms, Rec. XII, 521.
- Manitoba, Rec. IX, 499.
- Mexico, Rec. VI, 877.
- New South Wales, Rec. XII, 833.
- Nicaragua, Rec. X, 325; XI, 430; XII, 25.
- Queensland, Rec. XII, 921.
- river basins of European Russia, Rec. X, 327.
- Saint Kitts, Rec. XII, 1015.
- Southern Appalachians, Rec. IX, 814.
- Texas, Rec. XI, 430.
- United States, Rec. IX, 533.
- Upper Chagres River, Rec. XII, 521.
- measurements on ships, Rec. X, 419.
- notes, Rec. II, 749; XI, 819.
- observations, Rec. II, 393; III, 16, 29; IV, 405; V, 29, 975; VII, 98; VIII, 292; X, 616.
- of the crop season, Rec. X, 522.
- quantity corresponding to given depths, Rec. X, 419.
- region of heavy, Rec. VII, 845.
- reports, telegraphing to section centers, Rec. XI, 127.
- season in Colorado, Rec. XII, 520.

Rains—

- cold, effect on fruit blossoms, Rec. X, 58.
- sulphur, Rec. X, 124.
- warm, and angleworms, Rec. XI, 819.

Raisin—

- culture in California, Rec. XII, 1046.
- forcing houses, Rec. VI, 221.
- grape in California, irrigation for, Rec. III, 328.
- grapes, development, Rec. X, 440.
- vineyards, damage by thrips, Rec. IX, 74.
- wine, studies, Rec. IX, 696.

Raisins—

- analyses, Rec. X, 255; XI, 882.
- determination of malic acid, Rec. X, 413.
- grapes for, Rec. VIII, 175.
- new process of curing, Rec. VI, 821.
- sulphured, Rec. X, 255.

Ramalina reticulata, analysis, Rec. XII, 282.

Rambutan nut, notes, Rec. VIII, 231.

Ramie—

- adaptability to California, Rec. II, 475.
- bark, analyses, Rec. III, 371.
- culture, Rec. VII, 498; XI, 220, 340.

Ramie—Continued.

culture—

- experiments, Rec. II, 475; III, 599; VIII, 492; IX, 41, 243.
- and preparation for market, Rec. VII, 809, 862, 954.
- uses, Rec. VI, 45, 542.
- in foreign countries, Rec. X, 636.
- Jamaica, Rec. VIII, 125.
- the United States, Rec. I, 299.

fiber—

- process of cleaning, Rec. II, 474.
- tests of machines for cleaning, Rec. IV, 429; VI, 806.
- in Mexico, Rec. XI, 1038.
- leaf roller, notes, Rec. X, 973.
- leaves, analyses, Rec. III, 371.
- manuring, Rec. II, 475.
- notes, Rec. VI, 805; X, 725; XI, 340; XII, 329, 942.
- plant—
 - analyses, Rec. III, 318, 371, 594.
 - ash constituents, Rec. III, 372.
 - fertilizing value, Rec. III, 373.
- process of cleaning fiber, Rec. II, 474.
- production, Rec. III, 594.
- soil adapted to, Rec. II, 475.
- stalks, analyses, Rec. III, 371.
- statistics, Rec. II, 479.
- value of fiber, Rec. II, 474.
- varieties, Rec. III, 802; IV, 411.
- yield per acre, Rec. III, 371.

(See also footnote, p. 76.)

Ramularia—

- areola*, notes, Rec. IV, 834.
- armoraciae*, notes, Rec. IV, 50.
- arvensis*, notes, Rec. IV, 50.
- cylindriopsis*, notes, Rec. X, 260.
- fragariae*, notes, Rec. III, 290.
- modesta*, notes, Rec. VI, 823.
- rufomaculans*, notes, Rec. III, 10.
- tulasnei*, notes, Rec. II, 405; III, 313; IV, 50.
- vallisumbrosae*, n. sp., description, Rec. XII, 767.

Rana—

- areolata æsopus*, notes, Rec. VI, 440.
- fisheri*, n. sp., notes, Rec. V, 90.

Range—

- grasses of Arizona, Rec. III, 280.
- improvement, experiments at Abilene, Tex., Rec. XII, 230.

Ranges—

- of Southwest, experiments, Rec. X, 1005.
- overstocking, Rec. III, 280.

Ranunculaceæ—

- morphology of leaves, Rec. IX, 329.
- notes, Rec. V, 973.

Ranunculus—

- acris*, root system, Rec. IV, 46.
- bulbosus*—

- notes, Rec. V, 398, 399.
- repens*, variation in parts, Rec. IX, 28.
- root system, Rec. IV, 46.
- sativus*, notes, Rec. IX, 957.

Ranunculus, varieties, Rec. IX, 451.

Rape—

- analyses, Rec. IV, 733; V, 171; VI, 294, 1008; VIII, 719; IX, 682; X, 234; XI, 883.
- as a cover crop for orchards, Rec. X, 252.
- a forage plant, Rec. V, 992; VI, 632; VIII, 885; X, 741; XI, 340; XII, 134, 332.
- a green manure, Rec. III, 927; V, 924.
- fall pasture for sheep, Rec. IV, 140.
- cake, alum in, Rec. III, 503.
- culture, Rec. V, 219, 624; VII, 32, 581; IX, 357.
- culture—
 - experiments, Rec. IV, 140, 661, 725; V, 39, 171; VI, 542, 886, 984; VII, 116, 209, 673; IX, 41; X, 433; XI, 43, 632.
 - in Canada, Rec. IV, 209.
- cutting—
 - at different dates, Rec. X, 741.
 - methods, Rec. X, 741.
- digestibility, Rec. XI, 277.
- disease in India, Rec. V, 354.
- Dwarf Essex—
 - analyses, Rec. VII, 296; XII, 378.
 - culture experiments, Rec. VII, 295; VIII, 308, 883.
- East India, notes, Rec. V, 1022.
- Essex, and crimson clover, tests, Rec. VIII, 883.
- experiments in India, Rec. V, 333.
- fertilizer experiments, Rec. III, 128; V, 219, 623, 625; XI, 632.
- for cows, Rec. V, 634.
- lambs, Rec. V, 632, 633; VI, 468; IX, 374; X, 773.
- pigs, Rec. V, 634; IX, 374; X, 781; XI, 669; XII, 588.
- sheep, Rec. II, 677; VII, 64; VIII, 327; XII, 276.
- growth and uses, Rec. II, 677.
- Guzerat, notes, Rec. V, 1030.
- insects affecting, Rec. VIII, 69.
- mustard oil in, Rec. IV, 973.
- nitrate of soda for, Rec. V, 625.
- notes, Rec. XI, 329, 833; XII, 328, 332, 338.
- plant, description and history, Rec. V, 219.
- seed—
 - East India, composition, Rec. V, 1022.
 - ground, analyses, Rec. XII, 282.
 - meal, adulteration, Rec. III, 661.
 - meal, analyses, Rec. VI, 163; X, 337; XI, 719.
 - oil content, Rec. IX, 242.
 - oil content as affected by soil and fertilization, Rec. XI, 141.
 - selection, Rec. X, 1047.
 - v. rape-seed meal for feeding, Rec. VI, 76.
- seed cake—
 - adulteration, Rec. III, 661; VII, 248.
 - alum in, Rec. III, 503.
 - analyses, Rec. VIII, 153, 154; IX, 266.
 - artificial coloring, Rec. VI, 752.
 - comparative value, Rec. VI, 752; VII, 708.
 - determination of value, Rec. IV, 449.
 - digestibility, Rec. X, 1083.
 - digestibility of albuminoids, Rec. V, 227.
 - effect on milk, Rec. V, 968, 969.

Rape—Continued.

- seed cake—continued.
- examination, Rec. VII, 519.
- for cows, Rec. V, 927; VI, 76; VII, 64.
- wheat, Rec. V, 705.
- mustard oil, formation and harmful effects, Rec. XII, 877.
- mustard oil in, Rec. IV, 449, 973; XI, 22, 619.
- oil content, Rec. IV, 615.
- oil of garlic in, Rec. VII, 248.
- poisoning, Rec. IX, 994; XI, 92.
- poisonous constituents, Rec. V, 1021.
- studies, Rec. X, 884.
- soils for, Rec. V, 219.
- summer—
 - analyses, Rec. VI, 294.
 - culture, Rec. IV, 661.
 - notes, Rec. VI, 294; VIII, 701.
- test, Rec. XII, 641.
- varieties, Rec. V, 219; VI, 416; VIII, 223, 490, 975; IX, 741; X, 238; XI, 631.
- v. clover for pigs, Rec. XI, 570; XII, 76.
- winter—
 - analyses, Rec. VII, 296.
 - culture experiments, Rec. VII, 295.
 - notes, Rec. VI, 296.
- Raphanus raphanistrum*—
 - fasciation, Rec. XII, 572.
 - notes, Rec. IV, 334; IX, 957.
 - root system, Rec. IV, 46.
- Raphigaster hilaris*, notes, Rec. V, 409; VIII, 1002.
- Rascal leaf crumpler, notes, Rec. II, 101; IV, 373.
- Raspberries—
 - analyses, Rec. X, 754.
 - as affected by pinching tips of shoots, Rec. XII, 51.
 - black—
 - analyses, Rec. XI, 1046.
 - notes, Rec. III, 522.
 - varieties, Rec. X, 253, 962; XI, 644, 650, 1046.
 - bud development, Rec. XI, 851.
 - cross-fertilization, Rec. II, 509.
 - culture, Rec. I, 5; III, 107, 607; V, 394; VIII, 890, 985; IX, 52, 246, 950.
 - culture—
 - experiments, Rec. VII, 866; XI, 735.
 - in Canada, Rec. VI, 637; VII, 403.
 - England, Rec. VII, 868.
 - evaporating, Rec. VII, 865; IX, 451.
 - fertilizer experiments, Bul. 2, I, 94; Rec. XI, 735, 1039; XII, 344, 648.
 - fungicides and insecticides for, Rec. V, 684.
 - insects injurious to, Rec. II, 328; IV, 838.
 - irrigation, Rec. XI, 735, 1039; XII, 344.
 - notes, Rec. IX, 559; X, 547.
 - preservatives for exhibition purposes, Rec. XI, 649.
 - propagation and culture, Rec. IX, 950.
 - pruning, Rec. IX, 139.
 - purple, analyses, Rec. XI, 1046.
 - red—
 - analyses, Rec. XI, 1046.
 - hardiness of varieties, Rec. XI, 930.
 - notes, Rec. III, 522.

Raspberries—Continued.

red—continued.

- summer pruning, Rec. IX, 841.
- varieties, Rec. VII, 128; IX, 841; X, 253, 962; XI, 252, 544, 644, 650.
- winter protection, Rec. IX, 841.

summer—

- pinching, Rec. XII, 645.
- pruning, Rec. VIII, 985; IX, 139.
- varieties, Bul. 2, I, 21, 67, 154, 183, 190; Bul. 2, II, 88, 91, 117; Rec. II, 5, 6, 22, 25, 50, 147, 235, 290, 295, 314, 322, 327, 354, 372, 556, 586, 598, 653, 659, 668, 740; III, 82, 85, 229, 290, 313, 356, 360, 370, 402, 411, 445, 588, 685, 700, 722, 781, 788, 794; IV, 165, 166, 436, 556, 651, 652, 728, 917, 918; V, 53, 190, 299, 300, 302, 394, 496, 584, 585, 586, 681, 786, 793, 870, 873, 983, 984, 985, 1075, 1076; VI, 53, 55, 56, 142, 300, 423, 424, 636, 637, 725, 727, 810, 922, 988; VII, 34, 128, 129, 130, 131, 214, 306, 404, 405, 502, 864, 958, 960; VIII, 54, 134, 407, 496, 601, 791, 889; IX, 50, 137, 244, 245, 246, 353, 354, 1052; X, 48, 49, 255, 436, 1043; XI, 150, 153, 252, 850, 929; XII, 237, 450, 645, 854, 1044.

Raspberry—

anthracnose—

- fungicides for, Rec. VIII, 995.
- notes, Rec. II, 246, 482; III, 290, 313, 411, 847; IV, 659; V, 60, 498, 1037; VI, 559; VII, 38, 410; VIII, 231, 608, 899, 995; IX, 762; X, 266; XI, 170.
- prevention by culture, Rec. XII, 570.
- treatment, Rec. III, 847, 864; IV, 51; V, 60; VI, 53; VII, 137, 404, 694; VIII, 995; IX, 60, 763, 765.

bacterial disease, Rec. III, 411.

beetle—

- American, notes, Rec. IV, 839.
- notes, Rec. VI, 65.
- parasites, Rec. III, 46.

cane borer—

- notes, Bul. 2, II, 92, 119; III, 198, 313; IV, 839; V, 498.
- red-necked, notes, Rec. V, 403.
- remedies, Rec. XI, 63.

cane maggot, notes, Rec. III, 198; IV, 839; IX, 261, 364, 967.

cane rust, Rec. II, 246; III, 479.

crosses, notes, Rec. VI, 221.

crown gall, notes, Rec. IX, 762.

diseases, Rec. V, 450.

diseases in the Hudson Valley, Rec. XII, 155.

gallfly, notes, Rec. VI, 654.

geometer, notes, Rec. IV, 839.

gouty-gall beetle, notes, Rec. III, 46, 102, 705; IV, 839; VII, 697.

leaf curl, treatment, Rec. VIII, 231.

leaf roller, notes, Rec. IV, 839.

leaf spot, notes, Rec. V, 498; XI, 314.

mite, notes, Rec. VI, 65.

moth—

- notes, Rec. V, 740; VI, 65.
- remedies, Rec. XI, 264.

pests, notes, Rec. V, 402.

plume moth, notes, Rec. III, 198; IV, 839

pulp for shipping, Rec. XII, 648.

red rust, Rec. III, 411; V, 498.

Raspberry—Continued.

root borer, notes, Rec. III, 313; IV, 838; VIII, 906.

root gall, notes, Rec. IV, 838.

root gallfly, notes, Rec. VIII, 418.

roots, studies, Rec. X, 720.

rust, Rec. III, 161; V, 876.

sawfly—

- notes, Bul. 2, II, 119; Rec. III, 198; IV, 838; V, 403; XII, 263, 575.

remedies, Rec. I, 138; XI, 63.

seedlings, Rec. VI, 221.

vines, effect of hot water, Rec. V, 593.

weevil, remedies, Rec. XI, 264.

Rat—

flea, notes, Rec. IX, 254.

tail larva, Rec. IX, 858.

Rations—

army—

- emergency, Rec. X, 376.
- in Ladysmith, Rec. XII, 79.

balanced, Rec. XI, 498.

calculating, graphic method, Rec. V, 258.

calculation, Rec. IV, 6, 935; VI, 445; IX, 276, 873; X, 884, 992; XI, 184.

compounding, Bul. 2, II, 50, 57, 100; Rec. IV, 167; VI, 931.

deficient in albuminoids, result of feeding, Rec. IV, 986.

improvement, Rec. VII, 63.

maintenance, Rec. V, 680.

medium and wide, feeding values, Rec. XI, 382; XII, 284.

mixed, dry matter content, Rec. VIII, 822.

of equal balance, feeding values, Rec. IX, 878; XI, 382; XII, 282.

oils in, Rec. VII, 155.

preparation, Rec. X, 480.

rich in protein for meat production, Rec. V, 228.

standards for, Rec. IV, 2, 6, 176, 665, 732, 935; V, 195; VI, 349; VII, 596.

suggested, in time of drought, Rec. V, 258, 439; IX, 1080.

use and abuse, Rec. XII, 379.

Rats—

bacillus—

- for destroying, Rec. XI, 393; XII, 789.

pathogenic to, Rec. XII, 789.

diseases, pathological anatomy, Rec. XI, 393.

kangaroo, notes, Rec. II, 258; III, 184.

nutrition experiments, Rec. V, 532.

repression by means of guinea pigs, Rec. V, 730.

susceptibility to hemorrhagic septicemia of poultry, Rec. XII, 991.

Rattlebox, notes, Rec. IV, 924; V, 399; X, 516.

Rattle pods, notes, Rec. VIII, 781.

Rauh's stock food, analyses, Rec. XII, 70.

Raupenleim—

and Dendrolene as insecticides, Rec. VIII, 415.

as an insecticide, Rec. VII, 515, 793.

composition, Rec. XII, 271.

effect on young trees, Rec. VIII, 70.

Ravenelia—

arizonica, notes, Rec. VII, 278.

opaca, notes, Rec. VII, 513.

- Ravenelia—
 new species, notes, Rec. VI, 617.
 notes, Rec. V, 1100.
- Razoumofskyia robusta*, seed dissemination, Rec. XI, 28.
- Reading courses in agricultural education, Rec. X, 1.
- Reaping machines, evolution and comparison, Rec. XII, 697.
- Receiver, new, for distillation of oils, Rec. IX, 621.
- Reciprocity—
 and agricultural exports, Rec. IV, 578.
 treaties, Rec. III, 326, 903.
- Reclamation—
 of arid land, Rec. VI, 345; VIII, 966.
 arid land, legislation for, Rec. XI, 195.
 reh or usar land, Rec. IX, 335.
 washed soils, Rec. VI, 515.
- Record keeping in horticultural work, Rec. IX, 297, 318.
- Recording instruments, storage battery for, Rec. XI, 620.
- Records, slip, Rec. V, 518.
- Red bug, notes, Rec. VII, 595.
- Red clay, Piedmont, improvement, Rec. XI, 497.
- Red clover. (See CLOVER.)
- Red Desert of Wyoming, description, Rec. X, 718.
- Red fox, Rec. IX, 1030.
- Red gum, ash analyses, Rec. XI, 1052; XII, 39.
- Red mite—
 as an enemy of the locust, Bul. 2, II, 93; Rec. III, 228.
 notes, Rec. VIII, 145.
- Red oak borer, notes, Rec. VIII, 146.
- Red pigment of *Amanita*, composition, Rec. VIII, 26.
- Red Poll cattle, notes, Rec. XI, 983.
- Red rice, notes, Rec. XII, 760.
- Red root—
 notes, Rec. II, 655; III, 521.
 sedge, notes, Rec. X, 343.
- Red rust mite, notes, Bul. 2, I, 177.
- Red salt grass, analyses, Rec. II, 487.
- Red scale. (See SCALE, RED.)
- Red spider—
 affecting violets, notes, Rec. IV, 54.
 insecticides for, Rec. II, 415.
 notes, Bul. 2, I, 177; Rec. I, 45, 83; II, 720; III, 175, 889; V, 236, 499, 791; VI, 65, 147, 315; VIII, 999; IX, 261, 571, 767, 859; X, 65, 164, 165, 168, 268, 373, 763; XI, 174, 1064; XII, 265, 575, 1067.
 on hops, Rec. V, 236.
 melons, Rec. V, 731.
 rose bushes, kerosene emulsion for, Rec. III, 879.
 prevalence in Illinois, Rec. V, 901.
 remedies, Rec. I, 83; III, 870, 889; VI, 440; VII, 593; VIII, 321; IX, 860; X, 270, 661; XI, 172, 174, 473, 1065.
- Red spiders of the United States, notes, Rec. XII, 469.
- Red Star Ferric Fertilizer, analyses, Rec. II, 327.
- Red tail tachina fly, Rec. IX, 365.
- Red twigged dogwood, notes, Rec. IV, 655.
- Red winged starling, Rec. IX, 670.
- Red yeast, formation, Rec. VII, 659.
- Redbud—
 Japanese—
 diseases, treatment, Rec. XI, 752.
 leaf spot, Rec. IX, 657.
 notes, Rec. III, 522.
- Redfieldia flexuosa*, notes, Rec. XI, 423.
- Redfield's grass, notes, Rec. XI, 423.
- Redonda phosphate—
 composition, Rec. III, 263.
 detection, Rec. III, 211.
 fertilizing value, Rec. IV, 222; VI, 401.
 in Thomas slag, Rec. V, 472.
- Redondite *v.* Thomas slag as a fertilizer, Rec. XI, 136.
- Redtop— (See also AGROSTIS.)
 analyses, Bul. 2, II, 38, 39, 51, 84; Rec. II, 329, 644; III, 40, 357, 629; IV, 248, 475, 646, 769, 770; V, 596; VI, 403; VII, 155; VIII, 810; IX, 268, 786; X, 244; XI, 882.
 as a forage plant, Rec. III, 28, 29; IV, 770.
 culture experiments, Rec. I, 121; III, 158; IV, 38, 248; V, 38, 171, 679, 870, 871; VI, 215, 296, 531, 542, 807; X, 244.
 digestibility, Bul. 2, II, 55, 61.
 fall, notes, Rec. X, 343.
 false—
 analyses, Rec. II, 329; V, 64, 65.
 notes, Rec. VIII, 781.
 for meadows and pastures, Rec. II, 238.
 hay, analyses, Rec. VI, 444.
 leaf smut, studies, Rec. XII, 358.
 Natal, culture experiments, Rec. VIII, 401.
 notes, Bul. 2, II, 84; Rec. I, 317; II, 238, 329, 601, 632, 658; VII, 116, 380; X, 547; XI, 339.
 plat experiments, Rec. II, 632.
 protein content as affected by nitrogen applied, Rec. V, 579.
- Redwater. (See TEXAS FEVER.)
- Redwood—
 forests, increase, Rec. VII, 961.
 height, Rec. VIII, 605.
 notes, Rec. XI, 456.
- Redurix raptatorius* eating bees, Rec. VI, 838.
- Reed—
 common, notes, Rec. IV, 653.
 grass, Indian, analyses, Rec. VI, 403.
 variegated, notes, Rec. IV, 653.
- Reeds—
 as a food plant of *Hydracia misasca*, Rec. V, 912.
 common, as feeding stuffs, Rec. V, 733.
- Reforestation—
 commercial fertilizers in, Rec. XII, 958.
 in California, Rec. XII, 651.
 Colorado, Rec. XI, 53.
 France, Rec. XII, 757, 758.
 Holland, Rec. VIII, 315.
 Nebraska, Rec. IX, 562.
 the Southwest, Rec. XI, 458.
 of Campine, Rec. XII, 562.
 mountains, Rec. X, 53.
 of mountains—
 and drying up of streams, Rec. IV, 872.
 of northern Colorado, Rec. IX, 452.
 of pine stump lands, Rec. X, 1046.
 the Loire basin, Rec. X, 53.
 white pine lands, Rec. X, 966.
 woodlands, Rec. VII, 776.

- Reforesting of sand hills of Nebraska, **Rec. IX**, 953.
- Refractometer—
 for oleomargarine, **Rec. VII**, 272, 556.
 hot-chamber, for fats, **Rec. VI**, 190.
 in butter examination, **Rec. II**, 533; **VI**, 274; **X**, 17; **XI**, 618; **XII**, 516.
 new, for butter, **Rec. VI**, 868; **VII**, 273.
 notes, **Rec. IV**, 314.
 Wollny's milk-fat, **Rec. VII**, 556.
- Refrigerating machines—
 in dairying, **Rec. VIII**, 1032; **IX**, 1088.
 tests, **Rec. XI**, 97.
v. ice houses for creameries, **Rec. IX**, 1088.
- Refrigeration—
 compend, **Rec. XII**, 197.
 in dairying, **Rec. XI**, 87.
- Refrigerator storage rooms for butter on steamships, **Rec. VIII**, 536.
- Regal walnut moth, **Rec. VIII**, 418.
- Regenwalde, Germany, Experiment Station, report, **Rec. III**, 264; **IV**, 989.
- Reh or usar land, reclamation, **Rec. IX**, 335.
- Reindeer—
 epizootic disease, **Rec. XI**, 895.
 immunization against anthrax, **Rec. XII**, 490.
 meat, measles in, **Rec. XI**, 91.
 milk. (*See* MILK, REINDEER.)
 moss—
 analyses, **Rec. II**, 495; **IV**, 972.
 for cows, **Rec. IX**, 689; **X**, 492.
- Relbunium, revision of species, **Rec. X**, 416.
- Rendering works—
 refuse, analyses, **Rec. III**, 315.
 waste liquor, analyses, **Rec. XII**, 717.
- Rennet—
 action—
 and clotting of blood, Fick's theory, **Rec. III**, 832.
 as affected by acids and lime salts, **Rec. XII**, 786.
 affected by salt, **Rec. XI**, 584.
 in milk of different degrees of acidity, **Rec. III**, 355; **XII**, 485.
 watered milk, **Rec. XI**, 581.
 on milk constituents, **Rec. XII**, 389.
 artificial—
 in cheese making, **Rec. X**, 791.
 production, **Rec. V**, 1048.
 bacteria in, **Rec. V**, 208.
 behavior of—
 casein toward, **Rec. VIII**, 454.
 milk toward, **Rec. VI**, 111, 341.
 calves'—
 curdling power of ferment, **Rec. X**, 91.
 strength of, **Rec. II**, 407.
 conditions affecting strength, **Rec. II**, 406.
 curdling, **Rec. X**, 387.
 curdling—
 action on milk and casein, **Rec. III**, 929; **V**, 1032; **VI**, 169; **VIII**, 174, 631, 1032; **IX**, 487, 988; **X**, 387; **XI**, 580; **XII**, 389.
 of milk and coagulation of blood, **Rec. V**, 1032.
 milk as affected by pasteurization, **Rec. IV**, 316.
 curing, **Rec. II**, 406.
- Rennet—Continued.
 extract, effect in curdling milk, **Rec. XI**, 580.
 extracts, commercial, **Rec. V**, 1001, 1048.
 ferment, action, **Rec. X**, 689.
 from Jersey calves, strength, **Rec. II**, 407.
 germs in, **Rec. V**, 1048.
 in bacteria cultures, **Rec. V**, 563.
 cheese making. (*See* CHEESE MAKING.)
 plants yielding, **Rec. V**, 1049.
 studies, **Rec. VI**, 941.
 "Rennet test" of milk, **Rec. VI**, 250, 341.
- Rennet—
 testing, **Rec. V**, 824, 928; **VIII**, 631; **XII**, 786.
 vegetable, **Rec. V**, 130, 1049.
- Reproduction, sexual—
 in plants, **Rec. VIII**, 29.
 of *Ustilaginæ*, **Rec. V**, 418.
- Reptiles—
 composition and food value, **Rec. XII**, 282.
 of Death Valley, California, **Rec. V**, 90.
- Rescue grass—
 analyses, **Rec. III**, 890; **VI**, 569.
 as a forage plant, **Rec. III**, 51.
 culture experiments, **Rec. I**, 121; **VI**, 531.
 notes, **Bul. 2**, I, 189; **Rec. II**, 69, 601, 608; **III**, 51, 890; **IV**, 248; **V**, 578; **VI**, 294, 542; **VII**, 296; **X**, 343; **XII**, 332, 442.
- Reseda odorata*, notes, **Rec. XI**, 465.
- Resedaceæ, localization of active principles, **Rec. V**, 729.
- Reserve—
 cells of plants, spontaneous emptying, **Rec. VIII**, 108.
 material of—
 plants, **Rec. VII**, 747.
 seeds, disappearance in germination, **Rec. V**, 728; **VI**, 873.
 the walnut, **Rec. IX**, 329.
 protein in plants, **Rec. VI**, 387; **VII**, 655.
- Reservoir—
 irrigation on the plains, **Rec. XI**, 597.
 survey, **Rec. XI**, 798.
- Reservoirs—
 in irrigated regions, **Rec. XI**, 294.
 storage, **Rec. VIII**, 91, 351; **XI**, 195, 1052.
- Resin—
 and oil ducts, origin, **Rec. IV**, 870.
 cells in *Taxus baccata*, **Rec. V**, 923.
 content of turpentine timber after tapping, **Rec. V**, 96.
 deposits, formation in *Abietinæ*, **Rec. IX**, 452.
 ducts, formation in conifers, **Rec. VIII**, 205, 380, 471.
 for rendering fungicides adherent, **Rec. X**, 1056.
 formation in plants, **Rec. V**, 923; **XII**, 519.
 in conifers, **Rec. V**, 347.
 soaps, determination, **Rec. V**, 253.
 trees, distribution, **Rec. V**, 925.
 lime mixture—
 and Bordeaux mixture for cabbage plusia, **Rec. X**, 270.
 for cabbage worms, **Rec. X**, 869.
 producing plants in the French colonies, **Rec. XII**, 954.
 soap for red scale, **Rec. II**, 80.

- Resin—Continued.
 wash—
 as an insecticide, Rec. VI, 837.
 for grape aspidiotus, Rec. VI, 564.
 pear-tree psylla, Rec. IV, 473.
 Phylloxera, Rec. III, 54.
 scale insects, Rec. XII, 68.
 washes—
 for San José scale, Rec. III, 54; V, 1088;
 IX, 155.
 preparation and use, Rec. II, 747; III, 54.
 Resinous and tannic substances in—
 Gardenia, genetic affinity between, Rec. III,
 925.
 Spermolepsis, genetic affinity between, Rec.
 III, 925.
 Resins—
 analysis methods, handbook, Rec. XI, 1008.
 and gums exuded by Queensland plants, Rec.
 VIII, 285.
 Resorcin as an indicator, Rec. XI, 214.
 Respiration—
 and assimilation in cells containing chloro-
 phyll, Rec. VII, 925.
 muscular energy, Rec. VIII, 151.
 calorimeter—
 description, Rec. IX, 863; X, 470, 584, 664.
 development, Rec. XI, 501.
 experiments, Rec. XI, 1100.
 new, Rec. XI, 372, 576.
 in plant cells, localization, Rec. VII, 467.
 plants, Rec. VIII, 108; IX, 326, 1026.
 plants, rôle of carbohydrates, Rec. VI, 113.
 potatoes, Rec. IV, 782.
 intensity of shade-loving plants, Rec. IV, 613.
 intermolecular, in plants, Rec. IV, 221; VI, 115.
 of green and etiolated leaves, Rec. VI, 194.
 injured plants, Rec. VIII, 746.
 leaves, Rec. VI, 193, 507, 782.
 of plants—
 as affected by anesthetics, Rec. XII, 112.
 affected by light, Rec. IV, 857, 870; V,
 728, 818.
 affected by temperature, Rec. XI, 421,
 515; XII, 112.
 affected by various substances, Rec.
 XI, 320.
 grown in the shade, Rec. V, 434.
 in sunlight and shade, Rec. IV, 314, 870.
 observations on, Rec. IV, 517.
 of tubers as affected by drying, Rec. VI, 693.
 Respiratory—
 gas exchange during eating, Rec. V, 259.
 products, measurement and analysis, Rec.
 XII, 178.
 quotient—
 as affected by muscular work, Rec. XI, 72.
 during fattening, Rec. V, 1101.
 Respired air—
 method of measuring, Rec. XI, 971.
 poisonous properties, Rec. XII, 477.
 Retinia buoliana, notes, Rec. VI, 567.
 Retinospora—
 obtusa, notes, Rec. V, 54.
 pisifera aurea, notes, Rec. V, 54.
 plumosa, notes, Rec. IV, 655.
 squarrosa, notes, Rec. V, 54.
 Retting of flax, Rec. X, 736; XI, 240.
 Reversion and transmission, Rec. V, 345.
 Rhabditis sp. in asters, Rec. IV, 930.
 Rhagodia—
 billardieri, notes, Rec. X, 546.
 nutans, notes, Rec. X, 546.
 Rhagoletis—
 cingulata, notes, Rec. XI, 866.
 pomonella, notes, Rec. IX, 261.
 ribicola, notes, Rec. X, 869.
 Rhamnose—
 crystallized anhydrous, Rec. VII, 834.
 feeding experiments, Rec. IV, 519.
 Rhamnus—
 alnifolia, notes, Rec. III, 521.
 caroliniana, notes, Rec. III, 521.
 catharticus, notes, Rec. IV, 656.
 lanceolatus, notes, Rec. III, 521; XI, 943.
 Rhamnus, distribution in America, Rec. VII, 839.
 Rhaphidospora in intestines of Olobrates gibbus,
 Rec. XII, 273.
 Rhea grass, notes, Rec. X, 725.
 Rheotropism and the relation of response to stim-
 ulus, Rec. VIII, 205.
 Rheumatism—
 and bee stings, Rec. V, 328.
 in horses, Rec. IV, 749.
 muscular, treatment, Rec. XII, 392.
 weed, analyses, Rec. III, 629.
 Rheumatobates rileyi, n. sp., notes, Rec. IV, 83, 699.
 Rhianthus, destruction, Rec. VII, 136.
 Rhine region, regimen of, Rec. V, 1086.
 Rhinichthys—
 nevadensis, n. sp., notes, Rec. V, 90.
 velifer, n. sp., notes, Rec. V, 90.
 Rhipicepalus—
 decoloratus, notes, Rec. XII, 861.
 evertsi, notes, Rec. XII, 861.
 Rhizobium—
 frankii majus, notes, Rec. V, 856.
 mutabile, notes, Rec. V, 855.
 spp., notes, Rec. V, 923, 1037.
 Rhizobius—
 jujubæ, notes, Rec. XI, 957.
 toowoomba, notes, Rec. VI, 741.
 ventralis—
 importation in California, Rec. XI, 558.
 notes, Rec. VI, 313, 741, 742.
 Rhizococcus multispinosus, notes, Rec. X, 569.
 Rhizoctonia—
 betæ, notes, Rec. XI, 162.
 medicaginis, notes, Rec. VI, 560.
 solani as a cause of potato disease, Rec. VIII,
 995.
 sp., notes, Rec. XII, 657.
 sp., treatment, Rec. XII, 857.
 strobi, a new fungus disease of white pine,
 Rec. X, 57.
 subepigea, n. sp., Rec. XI, 261.
 violaceæ—
 affecting sugar beets, Rec. XI, 163, 1057.
 notes, Rec. VII, 875, 962; IX, 763; X, 865.
 studies, Rec. XII, 572.
 Rhizoctonia, producing plant diseases, Rec. XI,
 57.
 Rhizoctonus ampelinus, notes, Rec. IX, 260.
 Rhizome plants and earthworms, Rec. VII, 94.

Rhizomes—

- causes of downward growth, Rec. XI, 320.
- growth, Rec. X, 613.
- movement of gases, Rec. VI, 487.

Rhizopus—

- necans*, notes, Rec. IX, 362, 1059.
- nigricans*—
 - notes, Rec. II, 416; III, 297; IV, 832; VI, 987; VII, 684.
 - on quinces, Rec. IV, 658.

Rhizotrogus—

- cicatricosus*, notes, Rec. VIII, 507.
- rufescens*, notes, Rec. VIII, 507.
- solstitialis*, notes, Rec. VIII, 507; XII, 468.

Rhodites radicum, notes, Rec. IV, 838; VIII, 418.

Rhododendron—

- ferrugineum*, notes, Rec. XI, 271.
- hirsutum*, notes, Rec. XI, 271.
- maximum*, notes, Rec. X, 516.
- spp., notes, Rec. IV, 656.

Rhodymenia palmata, notes, Rec. IV, 715.

Rhogas—

- fumipennis* parasitic on plum sphinx, Rec. X, 867.

intermedius, notes, Rec. II, 116.

Rhogodonta hastata, culture, Rec. VIII, 596.

Rhopalocera, North American, Rec. VIII, 712.

Rhopalosiphum—

- dianthi*—
 - affecting brinjal, Rec. XI, 1063
 - notes, Rec. VII, 144.
 - remedies, Rec. XI, 1065.
- maidis*, notes, Rec. II, 269.
- ribis*, notes, Rec. VII, 231; X, 268.
- spp., notes, Rec. X, 1066.
- violæ*—
 - notes, Rec. XII, 265.
 - n. sp., notes, Rec. XI, 871.

Rhopobota vacciniana, notes, Rec. I, 134; II, 418; III, 871; IV, 838; V, 800; X, 569; XI, 951.

Rhubarb—

- analyses, Rec. XII, 906.
- culture, Rec. VI, 728; VII, 771; VIII, 700; IX, 357.
- culture experiments, Rec. VIII, 313.
- curculio—
 - notes, Rec. II, 292; XII, 363.
 - parasite, Rec. II, 293.
- forcing, Rec. VII, 771; VIII, 600; X, 354; XI, 51, 645, 649, 999; XII, 449, 945, 952.
- insects affecting, Rec. VII, 699.
- notes, Rec. IX, 353; X, 49, 962.
- Russian, notes, Rec. II, 580.
- stems, analyses, Rec. IV, 59.
- varieties, Rec. II, 5, 356; III, 701; IV, 556; VI, 423; VII, 215; VIII, 889.

Rhus—

- canadensis trilobata*, notes, Rec. III, 521.
- caroliniana*, notes, Rec. VII, 466.
- copallina*, notes, Rec. III, 521; XII, 1045.
- coriaria*, tannic acid in, Rec. VII, 775.
- cotinus*, notes, Rec. IV, 656.
- diversiloba*, notes, Rec. III, 598; IV, 47; IX, 527; X, 516.
- glabra*, notes, Rec. III, 521; IV, 656.
- pumila*, notes, Rec. VII, 466.
- radicans*, notes, Rec. IX, 527; X, 516.

Rhus—Continued.

- toxicodendron*, notes, Rec. III, 521; IV, 47.
- typhina*, notes, Rec. IV, 656.
- vernix*, notes, Rec. IX, 527; X, 516.

Rhus—

- latex system, Rec. XII, 422.
- poisoning, Rec. VII, 564.

Rhynchites—

- bacchus*, notes, Rec. X, 871.
- betuleti*, notes, Rec. X, 763; XI, 273, 1057.
- bicolor*, notes, Rec. I, 12; IV, 839.
- cæruleus conicus*, notes, Rec. X, 871.

Rhynchocorus sp., notes, Rec. X, 769.

Rhynchophora, new genera and species, Rec. IV, 852.

Rhynchophorus palmarum, notes, Rec. XII, 774.

Rhynchospora corniculata, notes, Rec. XII, 760.

Rhynchota of Italy, Rec. X, 167.

Rhynchote sp. on Sinapis alba, Rec. VII, 595.

Rhynchotes injuring sugar cane, Rec. VIII, 69.

Rhyssa persuasoria, notes, Rec. XI, 168.

Rhytisma acerinum, notes, Rec. IV, 50; XI, 552; XII, 573, 767.

Rib grass—

- eradication, Rec. IX, 454.
- in clover fields, Rec. II, 25.
- notes, Rec. II, 651, 655; III, 308, 396, 893; XI, 651.

Ribbon grass—

- analyses, Rec. II, 329.
- notes, Rec. IV, 654.

Ribbon weed, notes, Rec. IV, 715.

Ribes—

- alpinum*, notes, Rec. IV, 656.
- aureum*, notes, Rec. III, 522; IV, 656, 917; V, 589.
- cereum*, notes, Rec. III, 522.
- cynosbati*, notes, Rec. III, 522.
- floridum*, notes, Rec. III, 522.
- gordonianum*, notes, Rec. IV, 656.
- gracile*, notes, Rec. III, 522.
- tenuiflorum*, notes, Rec. V, 589.

Rice—

- action of lime on, Rec. II, 762.
- affected by phloeothrips, Rec. XI, 476.
- analyses, Rec. III, 318; IV, 59; V, 64; VII, 396, 803; X, 678, 1088; XII, 79, 981.
- and millet smuts, development, Rec. VII, 788.
- ash analyses, Rec. X, 873.
- birds, notes, Rec. IV, 848.
- black mountain, analyses, Rec. VI, 403.
- blast—
 - notes, Rec. XI, 463.
 - white, notes, Rec. IV, 848.
- blight, notes, Rec. XI, 463.
- bran—
 - analyses, Rec. V, 499; VI, 331; VIII, 153, 714; X, 276.
 - as a feeding stuff, Rec. XII, 587.
 - for pigs, Rec. III, 478.
 - v. wheat bran for cows, Rec. XI, 1078.
- by-products, analyses, Rec. III, 318.
- cake as feeding stuff, Rec. V, 733.
- calculation of number of shoots from grains, Rec. X, 824.
- chaff, analyses, Rec. V, 64.

Rice—Continued.

corn—

- black, analyses, Rec. XI, 277.
- black, digestibility, Rec. XII, 872.
- Egyptian, culture experiments, Rec. II, 643; III, 16; IV, 645; V, 176.
- yield per acre, Rec. III, 19.

crops of India, Rec. V, 799; VII, 73; X, 98; XII, 1098.

cultivation—

- and preparation for market, Rec. VI, 295.
- production and distribution, Rec. IV, 847.

culture, Rec. XII, 741.

culture—

- experiments, Rec. IV, 145; VI, 722; VII, 397.
- in Cambodia, Rec. XI, 1038.
- Jamaica, Rec. XII, 235.
- Louisiana, Rec. VI, 347; VII, 955; XI, 1038.
- Tennessee, Rec. VIII, 125.
- the United States, Rec. XII, 46, 235.
- without water, Rec. X, 147.

cut grass, analyses, Rec. VI, 403.

digestibility, Rec. X, 1088.

diseases, Rec. IV, 848.

double, studies, Rec. VIII, 670.

false, analyses, Rec. V, 64, 65.

feed—

- analyses, Rec. XII, 378, 587.
- artificial digestion, Rec. IV, 87.

fertilizer experiments, Bul. 2, I, 72; Rec. II, 149; III, 604; IV, 518.

field experiments, Rec. II, 550; IV, 787.

fields in Louisiana, weeds in, Rec. XII, 760.

flour—

- analyses, Rec. V, 64; VIII, 426.
- and bran as a feeding stuff, Rec. XII, 587.

as an adulterant of flour, Rec. XI, 482.

foods, analyses, Rec. X, 475.

germination as affected by light, Rec. XII, 1049.

grain, analyses, Rec. V, 64.

grass, wild. (See WILD RICE GRASS.)

growing in Queensland, Rec. III, 753.

grub—

- beetle at electric lights, Rec. X, 570.
- notes, Rec. IV, 848.

hulls, analyses, Rec. III, 146; VIII, 520; XII, 981.

Indian, analyses, Rec. VI, 403.

industry in the United States, Rec. XI, 898.

insects affecting, Rec. VIII, 507.

irrigation in South Carolina, Rec. VIII, 307.

Japanese, culture experiments, Rec. VI, 542.

meal—

- analyses, Rec. II, 667; V, 631; XI, 777; XII, 907.
- digestibility, Rec. II, 459; IX, 373.
- digestion experiments, Rec. V, 1032.
- for pigs, Rec. XII, 982.

molasses feed, and ground grain for swine, Rec. X, 482.

v. corn meal for pigs, Rec. III, 479; IX, 374.

hay and Swedish turnips for sheep, Rec. II, 464.

Rice—Continued.

monograph, Rec. XI, 1038; XII, 144.

notes, Rec. XII, 144.

nutritive value, Rec. VII, 522.

oil, notes, Rec. V, 261.

pea, culture experiments, Rec. IX, 41.

plant, water requirements, Rec. X, 1038.

polish, analyses, Rec. V, 64; VI, 842.

production and consumption in the United States, Rec. VI, 347, 582.

products, analyses, Rec. I, 221.

red, description, Rec. X, 38.

rust, notes, Rec. IV, 848.

seed—

absorption of water, Rec. X, 1049.

germination as affected by different

amounts of water, Rec. X, 1006.

specific gravity, Rec. X, 967.

seeds as affected by soaking, Rec. X, 1047.

smut, treatment, Rec. XI, 464.

soils of—

North Carolina, Rec. IV, 850.

South Carolina, Rec. IV, 848.

stalk borer—

as cause of blast, Rec. XI, 463.

notes, Rec. IV, 848.

starch and buckwheat starch, distinction between, Rec. V, 1101.

starch manufacture, Rec. IV, 988.

straw, analyses, Rec. V, 64.

upland, culture experiments, Rec. VI, 542.

water weevil, note, Rec. IV, 848.

weevil—

in dry hop yeast, Rec. III, 812.

notes, Rec. V, 410; VI, 438; VII, 43, 515; VIII, 610; IX, 66.

wild—

analyses, Rec. XI, 883; XII, 71.

culture experiments, Rec. VI, 542.

ergot, Rec. XII, 359.

in Minnesota and Wisconsin, Rec. XII, 46.

notes, Rec. II, 487.

Richardsonia scabra. (See MEXICAN CLOVER.)

Ricin—

as a vaccine, Rec. XI, 287.

effect on tissues, Rec. XI, 91.

poisoning, pathology, Rec. XII, 394.

toxicology, Rec. XI, 496.

Ricinus. (See CASTOR BEAN.)

"Rickets"—

cause, Rec. XI, 1087.

in cattle produced by macrozamia roots, Rec. XI, 894, 1087.

Riders for balances, safety attachment, Rec. VI, 377.

Rieti wheat. (See WHEAT, RIETI.)

Riga, Russia, Experiment Station, report, Rec. II, 262.

Rinderpest—

etiology, Rec. VIII, 159, 525.

etiology and nature, Rec. I, 124.

immunity, Rec. X, 496; XI, 593.

immunizing power of gall, Rec. X, 91.

in Africa, Rec. VII, 987; VIII, 428.

Basutoland, Rec. X, 496.

camels, Rec. XI, 289; XII, 692.

Rinderpest—Continued.

- in Germany, repression, *Rec. VI*, 472.
 - Russia, *Rec. VIII*, 525.
 - South Africa, *Rec. X*, 496; *XI*, 695.
 - Turkey, *Rec. XI*, 593.
 - young pigs, *Rec. X*, 496.
 - notes, *Rec. V*, 414; *XII*, 188, 491, 790.
 - treatment, *Rec. XI*, 88, 91, 192, 494, 593, 893.
- Ring-banded soldier bug, notes, *Rec. VII*, 880.
- Ringbarking for killing trees, *Rec. VI*, 731.
- Ringdoves, diseased, bacteria in, *Rec. VI*, 245.
- Ringing—
- roses, *Rec. XI*, 151.
 - stem, effect on broad-leaved deciduous trees, *Rec. VIII*, 864.

Ring-legged tree bug, *Rec. VIII*, 505.

Rings in wood as related to anatomical structure, *Rec. V*, 820.

Ringworm—

- of calves, *Rec. VII*, 252, 618.
- cattle, *Rec. III*, 371; *VI*, 845.

Rio Grande water for irrigation, *Rec. V*, 1002; *XII*, 834.

Ripening of—

- fleshy fruits, *Rec. IX*, 330, 1025.
- seeds, *Rec. X*, 760.

Ripersia—

- frazini*, notes, *Rec. VII*, 792.
- maritima*, notes, *Rec. VI*, 563.
- sacchari*—
 - notes, *Rec. XII*, 1067.
 - n. sp., description, *Rec. XII*, 1067.

River—

- and flood service—
 - bulletins, *Rec. X*, 328, 827.
 - of U. S. Weather Bureau, *Rec. VIII*, 33; *IX*, 817; *XI*, 126, 223.
 - reports, *Rec. X*, 125.

banks, willows for protecting, *Rec. VII*, 508.

discharges in Colorado, *Rec. XI*, 620.

flow, measurements, *Rec. XII*, 295.

gauge—

- electric recording, *Rec. XII*, 96.
- new, *Rec. XI*, 818.
- readings, *Rec. XII*, 1096.

observations in New South Wales, *Rec. XII*, 833.

pollution and sewage disposal, notes, *Rec. VI*, 134.

stage predictions in the United States, *Rec. V*, 1086; *VI*, 621.

stations—

- data for 1898-99, *Rec. XI*, 1094; *XII*, 897.
- notes, *Rec. XI*, 196.

water—

- analyses, *Rec. III*, 444; *IV*, 120; *V*, 32.
- for irrigation, *Rec. V*, 32.

Rivers—

- four great, of Siberia, *Rec. V*, 1086.
- of Ohio as sources of public water supply, *Rec. XI*, 197.

Russia, flow, *Rec. XII*, 526.

United States, measurements of water, *Rec. XI*, 31.

underflow, and seepage waters, *Rec. VII*, 163.

Road—

- associations, conventions, *Rec. VII*, 257, 432.
- Conference, National, proceedings, *Rec. VI*, 677.

dust—

- for lice on pigs, *Rec. V*, 901.
- pulverized, for cherry slug, *Rec. IV*, 416.

laws—

- and statistics in Pennsylvania, *Rec. IX*, 798; *XII*, 897.

in New York, *Rec. XII*, 697.

Roads—

- administration, *Rec. XI*, 799.
- and pavements in France, *Rec. VIII*, 92.

bad—

- cost, *Rec. VI*, 943.
- losses due to, *Rec. II*, 254.

building, *Rec. II*, 255, 270; *IV*, 786; *VI*, 677; *VII*, 432, 530, 531; *VIII*, 92, 836; *IX*, 296; *XII*, 398, 796, 1097.

building—

- cooperative, *Rec. VIII*, 836.
- employment of convicts in, *Rec. VI*, 943; *VII*, 257; *X*, 196.

in Kentucky, *Rec. VII*, 257.

Minnesota, State aid, *Rec. X*, 396; *XI*, 396.

New Jersey, State aid, *Rec. VI*, 345.

Ohio, *Rec. VII*, 432.

the United States, *Rec. VIII*, 936; *XII*, 496.

materials of Pennsylvania, *Rec. XII*, 1097.

methods, *Rec. IV*, 786.

notes, *Rec. XII*, 221.

principles, *Rec. XI*, 395.

report of instructor, *Rec. X*, 397; *XI*, 294.

country—

brick paving for, *Rec. VIII*, 1033.

construction, *Rec. XII*, 398.

construction and maintenance, *Rec. XI*, 1095.

improvements, *Rec. IV*, 786; *XI*, 1094.

dirt, construction and maintenance, *Rec. XII*, 697.

earth, construction and repair, *Rec. VI*, 170.

for farms and farming districts, *Rec. VII*, 531.

good, *Rec. V*, 1026.

good—

advantages, *Rec. XI*, 799.

construction, *Rec. VI*, 943; *XI*, 498.

for Pennsylvania, *Rec. VIII*, 351.

importance, *Rec. IX*, 698.

money value to farmers, *Rec. VIII*, 350.

historical, *Rec. VII*, 432.

improvement, *Rec. V*, 2; *VI*, 582.

improvement—

addresses, *Rec. IX*, 698.

system for Georgia, *Rec. V*, 1007.

injuries, *Rec. IX*, 697.

macadam, *Rec. VII*, 432.

macadam—

construction, *Rec. VIII*, 351; *XI*, 598.

repair, *Rec. IX*, 1097.

maintenance, *Rec. IX*, 797; *XII*, 796.

messages of governors on, *Rec. VII*, 257; *XI*, 396.

metal, *Rec. XI*, 799.

Roads—Continued.

- national, in the United States, *Rec. VII*, 432.
- object lessons, *Rec. X*, 598.
- of Ontario, *Rec. VII*, 432; *VIII*, 442.
- paper on, *Rec. XII*, 296.
- repairing, *Rec. VIII*, 836; *IX*, 698.
- road materials, and freight rates, *Rec. VI*, 170.
- sprinkling with oil, *Rec. XI*, 197.
- State—
 - in Massachusetts, *Rec. VII*, 531.
 - New Jersey, *Rec. VII*, 432.
 - North Carolina, *Rec. VII*, 531.
 - laws, *Rec. V*, 799; *VII*, 630.
 - stone and shell, *Rec. VI*, 943.
 - surfacing experiments, *Rec. XII*, 1095.
 - tests, with a bicycle dynamometer, *Rec. VIII*, 558.
 - wagon, with steel tracks, *Rec. XI*, 197, 498.
- Roadside treatment, actual and possible, *Rec. X*, 1044.
- Roaring, chronic, inheritance, *Rec. XII*, 294.
- Robber flies as enemies of the locust, *Bul. 2*, II, 93.
- Robertson—
 - mixture for cows, *Rec. VIII*, 86.
 - silage mixture, *Rec. IX*, 799; 881.
- Robin—
 - economic relations, *Rec. XII*, 423.
 - food, *Rec. IV*, 418.
- Robinia pseudacacia*. (See LOCUST, BLACK.)
- Rock—
 - degeneration and soil formation, *Rec. IX*, 233.
 - elm, *Rec. IV*, 655; *VIII*, 604; *X*, 232.
 - gardens, treatment, *Rec. XI*, 650.
 - phosphates, analyses, *Rec. II*, 280, 666; *III*, 6, 168, 590; *VII*, 295; *VIII*, 389, 561, 563; *IX*, 538, 934; *X*, 919; *XI*, 39, 314, 719; *XII*, 129, 626.
- Rockall as a meteorological station, *Rec. X*, 419.
- Rockerries, plants for, *Rec. XI*, 52.
- Rocket, yellow—
 - composition, *Rec. X*, 1083.
 - notes, *Rec. V*, 398.
 - root system, *Rec. IV*, 46.
- Rockfoils, culture, *Rec. IX*, 141.
- Rocks—
 - action of iron oxid in, *Rec. IV*, 614.
 - analyses, *Rec. V*, 562; *VI*, 794; *XII*, 1023.
 - and soils, *Rec. VII*, 376.
 - soils of Grenada and Carriacou, *Rec. IX*, 817.
 - calcareous, analyses, *Bul. 2*, I, 22.
 - decomposition by nitro-bacteria, *Rec. III*, 114.
 - granitic, disintegration, *Rec. VII*, 98.
 - methods of analysis, *Rec. XII*, 1006.
 - plants, etc., identification, *Rec. VIII*, 679.
 - water content, *Rec. XI*, 517.
- Rockweed—
 - analyses, *Rec. III*, 9.
 - flat-stalked, notes, *Rec. IV*, 715.
 - round-stalked—
 - analyses, *Rec. IV*, 715.
 - notes, *Rec. IV*, 715.
- Rocky Mountain—
 - bee plant—
 - experiments, *Rec. II*, 279, 496.
 - notes, *Rec. III*, 52.

Rocky Mountain—Continued.

- cherry, dwarf, culture experiments, *Rec. IX*, 50.
- grasshoppers. (See LOCUST, ROCKY MOUNTAIN.)
- locust. (See LOCUST, ROCKY MOUNTAIN.)
- Rocky Mountains—
 - passage of low areas over, *Rec. VII*, 474.
 - water supply, *Rec. XI*, 912.
- Rodent, new, from West Africa, *Rec. IX*, 1031.
- Rodents—
 - destruction by Löffler's bacillus, *Rec. V*, 730.
 - notes, *Rec. XII*, 423.
- Rodolia iceryæ*, notes, *Rec. XI*, 477.
- Roentgen rays—
 - and cloudy condensation, *Rec. VIII*, 475.
 - effect on—
 - animals, *Rec. IX*, 377.
 - bacteria, *Rec. VIII*, 473; *IX*, 627.
 - germination of seed, *Rec. X*, 358.
 - living plant cell, *Rec. X*, 122.
 - plants, *Rec. IX*, 725; *XI*, 321.
 - in analysis of vegetable substances, *Rec. VIII*, 378.
 - the study of flower buds and seed vessels, *Rec. VIII*, 291.
 - veterinary practice, *Rec. XI*, 592, 893.
 - physiological and pathological action, *Rec. IX*, 193.
 - studies, *Rec. VII*, 736; *IX*, 531.
- Ræstleria hypogæa*, notes, *Rec. V*, 530; *VII*, 965.
- Ræstelia*—
 - aurantiaca*. (See QUINCE RUST.)
 - cancellata* of pears, *Rec. V*, 653.
 - lacerata* as a cause of hypertrophy on *Cratægeus oxyacantha*, *Rec. VIII*, 957.
 - koreaensis* and *Gymnosporangium japonicum*, relationships, *Rec. XII*, 572.
- pirata*—
 - in cedar trees, *Rec. V*, 308.
 - notes, *Rec. II*, 32; *III*, 217; *V*, 308; *X*, 1042.
 - sp., notes, *Rec. XII*, 573.
- Rolled avena, analyses, *Rec. VI*, 1023.
- "Rolled oats," analyses, *Rec. VI*, 1023.
- Roller—
 - farm, use, *Rec. VII*, 431.
 - process flour, *Rec. VII*, 522.
- Rolling, effect on productiveness of crops, *Rec. VIII*, 779; *X*, 847.
- Rolls, analyses, *Rec. X*, 876.
- Roman camomile, notes, *Rec. VII*, 31.
- Rome, Italy—
 - Experiment Station, *Rec. IV*, 235, 238.
 - laboratory of zymotechnics, *Rec. IV*, 238.
 - pathological station, *Rec. IV*, 238.
- Rook, stomach contents, *Rec. VIII*, 753.
- Room temperature, apparatus for regulating, *Rec. VI*, 873.
- Root— (See also ROOTS.)
 - borer, notes, *Rec. V*, 598, 599.
 - crops—
 - analyses, *Bul. 2*, I, 89; *Rec. III*, 859; *IX*, 834.
 - as affected by atmospheric electricity, *Rec. VI*, 537.
 - affected by potash salts, *Rec. VI*, 808.

Root—Continued.

- crops—
 - cultivation, Rec. I, 283.
 - culture, Rec. X, 945.
 - culture experiments, Rec. IV, 693, 825; VI, 36, 890; VII, 676; VIII, 307.
 - culture in England, Rec. VII, 387.
 - diseases, Rec. XI, 556.
 - fertilizer experiments, Rec. IX, 644; X, 433; XI, 230, 631, 842; XII, 338, 441, 633.
 - fertilizer requirements, Rec. XI, 250.
 - field experiments, Bul. 2, I, 89; Rec. VII, 765; VIII, 689.
 - grown continuously, Rec. IX, 45.
 - insects affecting, Rec. X, 165; XII, 962.
 - machinery for culture, Rec. IV, 989.
 - nitrogen content, Bul. 2, I, 89.
 - Norwegian, analyses, Rec. VII, 210; IX, 806.
 - potash for, Rec. IX, 644.
 - rotation experiments, Rec. XI, 842.
 - subsoiling, Rec. XI, 1026.
 - varieties, Rec. III, 625.
- curvature—
 - effect on distribution and arrangement of roots, Rec. XII, 912.
 - mechanism, Rec. XII, 24.
- development—
 - as affected by concentration of soil solutions, Rec. XI, 623.
 - from cuttings, Rec. VIII, 701; IX, 921.
 - of forage plants, Rec. X, 319.
- diseases caused by fungi, Rec. VII, 695.
- endodermis, cell-wall striation, Rec. IV, 870.
- epidermis, thickening of cell membrane of, Rec. V, 539.
- feeding, extent, Rec. II, 445; IV, 128.
- formation as affected by nitrogen, Rec. VIII, 564; IX, 119.
- formation of tissues, Rec. XII, 1014.
- fungus of New Zealand, Rec. I, 170.
- galls—
 - nematodes, studies, Rec. I, 185.
 - notes, Rec. VI, 546; VIII, 801.
 - of cultivated plants, Rec. IX, 251.
- growth—
 - and functions, Rec. IX, 812.
 - as related to methods of culture, Rec. XII, 339.
 - device for illustrating, Rec. V, 161.
 - effect of medium, Rec. XI, 28.
 - in plants, periodicity, Rec. VI, 115.
 - plants, physiology, Rec. VIII, 596.
 - of agricultural plants, Rec. VI, 140.
 - corn, Bul. 2, I, 66, 67; Rec. I, 32, 91; II, 16, 17, 558; V, 480, 482; VII, 568.
 - resumption in spring, Rec. XI, 511.
- hairs—
 - and rhizoids, growth, Rec. IX, 1028; X, 1013.
 - microscopic study, Rec. III, 836.
- killing—
 - notes, Rec. XI, 252.
 - of apple trees, Rec. XI, 848.
 - fruit trees by cold, Rec. XII, 147.
 - nursery stock, Rec. XI, 244.
- knot worm, notes, Rec. II, 101.

Root—Continued.

- knots of—
 - fruit trees and vines, Rec. IV, 563; VI, 832.
 - grapes, Rec. IV, 563.
 - young trees, Rec. VIII, 895.
- lice, notes, Rec. IX, 664.
- pressure—
 - and transpiration, Rec. VII, 925.
 - apparatus, Rec. X, 417.
 - artificial for transplanted trees, Rec. X, 751.
 - cause, Rec. XI, 424.
 - in different plants, Rec. III, 616.
 - periodicity, Rec. IX, 810.
- pruning—
 - apple trees, Rec. XI, 152, 548, 845, 928, 1047.
 - as frost protection, Rec. XI, 153.
 - close, notes, Rec. XI, 1047.
 - corn, Rec. I, 92; II, 17, 19, 154, 557, 561; III, 849; IV, 95; VI, 30; X, 945.
 - effect on development of fruit buds, Rec. X, 46.
 - experiments, Rec. X, 1042.
 - fruit trees, Rec. VII, 505; X, 1040; XI, 599, 845.
 - Stringfellow method, Rec. X, 1040; XII, 853.
 - summary of experiments, Rec. XI, 650.
 - trees, Rec. VIII, 601.
- rot, prevention, Rec. X, 275.
- secretions—
 - acid properties, Rec. VII, 749.
 - studies, Rec. VIII, 290.
- structure, Rec. VII, 563.
- suckers among conifers, Rec. XI, 940.
- symbiosis and mycorrhiza, Rec. VI, 557; VII, 750.
- systems of—
 - cultivated plants, studies, Rec. XII, 516.
 - culture plants, physiology, Rec. VII, 94.
 - leguminous plants, Rec. VII, 656.
 - weeds, Rec. IV, 47; V, 398.
- tips—
 - function, Rec. VI, 694.
 - sensitiveness, Rec. VI, 388.
- Root tubercle bacteria, Rec. IV, 984; V, 111; VI, 279, 382, 504, 507, 784, 786, 969; VII, 19, 467, 750; VIII, 381, 975; X, 318; XI, 218.
- Root tubercle bacteria—
 - chemical study, Rec. VII, 922.
 - dependence on symbiosis, Rec. IX, 119.
 - diffusibility, Rec. IV, 315, 377.
 - dimorphism, Rec. IV, 315.
 - for soil inoculation, Rec. VIII, 469; IX, 624.
 - in living plant tissues, Rec. X, 123, 224.
 - parasitic nature, Rec. XI, 25, 711.
 - selective power, Rec. XII, 422.
- Root tubercles— (See also NITROGEN ASSIMILATION; SOIL INOCULATION; and individual crops.)
 - adaptation of organisms, Rec. XII, 1013.
 - and Nitragin, Rec. XI, 25, 711; XII, 114.
 - as affected by sulphur, Rec. X, 22.
 - related to acquisition of nitrogen, Rec. III, 116, 331, 334, 418; X, 825.
 - Bacillus megatherium* in, Rec. XII, 719.
 - biology, Rec. IV, 876.

Root tubercles—Continued.

culture, Rec. V, 855.

development, Rec. IX, 920.

effect of—

quicklime on, Rec. VI, 507; XII, 548.

soil nitrogen on activity, Rec. XII, 827.

subsoil on, Rec. VII, 188.

growth in water cultures, Rec. V, 61.

inoculation for, Rec. V, 843; X, 119.

micro-organisms of, Rec. V, 855; X, 318.

number as affected by inoculation, Rec. XI, 753.

of alder, Rec. VI, 279; X, 825.

alder, fixation of nitrogen, Rec. VII, 561.

bean, studies, Rec. X, 21.

of cowpeas—

as affected by sterilized soil, Rec. IX, 446.
notes, Rec. XII, 331.

of Eleagnaceæ, Rec. X, 825.

of legumes, Bul. 2, II, 134; Rec. II, 396, 685,
686; III, 56, 211, 654, 749, 836, 914; IV, 15, 206,
376, 388, 876, 984; V, 110, 886; VI, 279, 382, 504,
616, 619, 784, 969; VII, 19, 188, 277; VIII, 380,
468, 956; IX, 29, 227, 330; X, 726; XI, 25; XII,
114, 719.

of legumes—

as affected by humidity, Rec. IV, 984; V,
112.affected by weather conditions, Rec.
XII, 827.

behavior in water cultures, Rec. XII, 113.

development, Rec. IV, 984; IX, 811.

external characteristics, Rec. VIII, 380.

fixation of nitrogen by, Rec. VII, 19; VIII,
381.

gas exchange between, Rec. IV, 388, 506.

nature and function, Rec. XII, 311.

organism, Rec. XII, 314.

physiology, Rec. VIII, 749.

relation to host plants, Rec. IX, 330.

review, Rec. V, 649; XII, 912.

revision, Rec. VI, 279.

spring and fall growth, Rec. XI, 25.

of lupines, nitrogen assimilation, Rec. VII, 467.

of pea—

dimorphism, Rec. IV, 315, 517; VI, 557.

studies, Rec. X, 21.

of plants, Rec. VI, 969.

plants, studies, Rec. V, 61, 110, 112, 434, 836,
855.soy beans, Rec. VI, 279; VII, 657, 750; XII,
334.

tomato, Rec. VII, 19.

physiological—

function, Rec. IV, 376.

processes within, Rec. XI, 1013.

production, Bul. 2, II, 134; Rec. III, 461; X,
119.

soil inoculation with, Rec. VIII, 671.

studies, Rec. V, 434; XI, 25, 711.

Root webworm, Rec. VI, 564; X, 458.

Roots— (See also ROOT CROPS.)

absorption of—

carbohydrates, Rec. X, 1006.

nutrient substances, Rec. XI, 320.

water, Rec. VI, 195.

activity, Rec. X, 417, 613.

Roots—Continued.

aerial—

functions, Rec. XI, 710.

of grapes, Rec. XI, 28.

and shoots—

correlation of growth, Rec. VI, 379.

effect of submersion, Rec. VI, 279.

and stubble of leguminous plants, analyses,
Rec. III, 376.

tubers, arginin in, Rec. VIII, 466.

as affected by static electricity, Rec. XI, 907.

contractile, functions, Rec. IX, 624.

dead, absorption of water, Rec. V, 1028.

effect on following crop of barley, Rec. XII,
1037.feeding experiments with, Rec. X, 1040; XII,
80.for cows, Rec. III, 222; IV, 440; V, 317; X,
684; XI, 284.

lambs, Rec. V, 688; XI, 181.

pigs, Rec. III, 133; V, 632; XI, 68.

pigs, sheep, and steers, Rec. IV, 485.

steers, Rec. VI, 570, 747.

geotropic—

curving, Rec. VII, 372.

sensitive, Rec. IX, 812.

grown on flat and ridged land, Rec. V, 623.

morphology, Rec. IX, 526.

of climbing and epiphytic plants, Rec. V, 818.

Equisetum, pectic substances in, Rec. VIII,
29.

perennial plants, investigation, Rec. X, 720.

of plants—

as affected by copper compounds, Rec. V,
649, 729.

manure, Rec. I, 18.

tillers of soil, Rec. IX, 736.

penetration of living tissues by, Rec. VI, 279.

preparation of seed beds for, Rec. XI, 642.

physiology, Rec. VII, 94; X, 928.

replacement, Rec. IX, 227.

secondary, vertical growth, Rec. IX, 812.

structure of cork tissues, Rec. XI, 818.

traumatropic curvature, Rec. VI, 506.

varieties, Rec. XII, 849.

Roquette, varieties, Rec. V, 189; VII, 405.

Rorig's lamp for destruction of insects, Rec. IX,
676.

Rosa—

arkansana, notes, Rec. III, 522.

blanda, notes, Rec. IV, 699; VIII, 703.

fendleri, notes, Rec. III, 522.

macdougalii, notes, Rec. VII, 564.

rugosa, notes, Rec. III, 788; V, 985; VI, 222;
VIII, 314.

setigera, notes, Rec. III, 522.

wichuraiana, hybrids, Rec. X, 440.

woodsii, notes, Rec. III, 522.

Rosa, inflorescence of genus, Rec. VIII, 380.

Rosaceæ—

cultivated, fungus parasites, Rec. XI, 166.

notes, Rec. V, 1014.

Rosanthes albiflorus, notes, Rec. VIII, 289.

Rose— (See also ROSES.)

alpine, sclerotium disease of, Rec. V, 1099.

anthracnose, treatment, Rec. VI, 826.

aphid parasite, Rec. X, 1059.

Rose—Continued.

aphis—

- notes, Rec. V, 593; X, 164.
- parasite, Rec. X, 1068.
- remedies, Rec. X, 661.

beetle—

- Fuller's, Rec. II, 5; X, 168.
- hairy, notes, Rec. IX, 151.
- black spot, notes, Rec. I, 83, 225; II, 581; V, 400; IX, 852; V, 399, 879; X, 59.
- breasted grosbeck, notes, Rec. XI, 428.

chafer—

- breeding, Rec. III, 170.
- false, Rec. X, 61.
- hot water for, Rec. III, 171, 291; V, 686.
- insecticides for, Rec. II, 415; III, 171.
- kainit for, Rec. III, 171.
- notes, Bul. 2, II, 118; Rec. I, 22; II, 269, 303, 718; III, 169, 175; IV, 56, 839, 840; V, 402, 403, 498, 593, 685, 792; VI, 567, 655; VII, 314, 882; VIII, 68, 321, 803; IX, 74, 371, 964; X, 458; XI, 169, 952, 955; XII, 665.
- remedies, Bul. 2, II, 118; Rec. III, 97, 171, 291, 878; V, 328, 403, 686, 792; VI, 655; VIII, 804; IX, 371; XI, 169; XII, 1065.
- club root, treatment, Rec. VIII, 801.
- diseases, Rec. IV, 53; V, 399, 877; X, 561; XII, 263, 360.

enemy, new, Rec. V, 654.

growers, international congress, Rec. XII, 855.

growing, houses for, Rec. VIII, 986.

hips, use, Rec. VI, 222.

leaf beetle, notes, Rec. IX, 668; XI, 366.

leaf blight, Rec. X, 59.

leaf blight, treatment, Rec. I, 83.

leaf hopper, notes, Rec. I, 291; IX, 262; X, 164.

leaf roller, notes, Rec. IV, 417.

leaf spot, treatment, Rec. I, 225; IX, 324, 852.

leaves, bronzing, Rec. XI, 553.

low, notes, Rec. III, 522.

mallow, swamp, for fiber, Rec. VI, 207.

Maréchal Niel, Rec. XI, 154.

mildew, treatment, Rec. I, 83; VIII, 500, 996; X, 764.

of Sharon, notes, Rec. IV, 655.

pests, extermination, Rec. XI, 477.

powdery mildew, Rec. V, 989.

rust—

- notes, Rec. V, 879; VII, 141.
- treatment, Rec. X, 651.

sawflies—

- in the United States, Rec. IV, 372.
- notes, Rec. VI, 654.

scale, notes, Rec. IV, 839; VI, 235; VII, 411, 696; IX, 663, 964; X, 768; XI, 762, 958.

slug—

- new, notes, Rec. II, 81.
- notes, Rec. III, 792; IV, 372, 852; X, 168.

soils, analyses, Rec. XI, 625.

stocks, notes, Rec. XI, 151.

tall, notes, Rec. III, 522.

thrips, remedies, Rec. XII, 54.

wild, notes, Rec. IV, 699; VIII, 703.

worm—

- bristly, notes, Rec. IV, 372.
- curled, notes, Rec. IV, 372.

Rosebud moth, Rec. X, 168.

"Roseleaf"—

- as an insecticide, Rec. XII, 62.
- for grain smut, Rec. X, 361.

Roselle, notes, Rec. XII, 152, 936.

Rosellinia—

- bigeloviae*, notes, Rec. VIII, 867.
- ligniaria* on ash trees, Rec. IX, 957.
- quercina*, notes, Rec. XII, 658.

radiciperda—

- as a cause of root diseases in New Zealand
- Rec. VII, 787.

notes, Rec. VII, 695.

sp. on roots of fruit trees, Rec. XII, 257.

Rosemary willow, notes, Rec. III, 788.

Roses—

abnormal growths, Rec. XI, 556.

brown orange scale on, Rec. V, 663.

China, Rec. XII, 855.

classification, Rec. XII, 855.

climbing—

- for Canada, Rec. IX, 140.
- prairie, notes, Rec. III, 522.

cross fertilization, Rec. VIII, 495; XII, 954.

culture, Rec. VIII, 497, 890, 986; X, 264.

culture—

- by the Romans, Rec. VII, 688.
- experiments, Rec. XI, 450, 745.
- in Luxembourg, Rec. VI, 424.
- Oregon, Rec. XI, 450.
- the West Indies, Rec. VII, 132.
- under glass, Rec. XII, 954.

eel worms on, remedies, Rec. VII, 695.

effect of—

- asphalt vapor on, Rec. VI, 557.
- scion on stock, Rec. XII, 855.

fertilizer experiments, Rec. IX, 327; XII, 53.

forcing, Rec. IX, 247; X, 356.

forcing hybrid perpetuals, Rec. VII, 586.

for grouping, Rec. XI, 154.

grafted—

- for forcing, Rec. X, 855; XI, 151.
- v. own root, Rec. XI, 52.

grafting, Rec. V, 1018; VII, 586, 688; X, 758, 855.

greenhouse, investigations, Rec. XI, 750.

hardy, notes, Rec. V, 873.

history, Rec. XII, 247.

hybrid, Rec. V, 985; VI, 993; X, 47, 440.

hybridity, Rec. XII, 855.

hybridizing, Rec. VIII, 55, 495; XII, 954.

improvement, Rec. IX, 140.

indigenous, of Sarthe, Rec. IX, 358.

injury by mucor, Rec. X, 861.

insects affecting, Rec. II, 162; X, 373, 469.

nematodes in roots, Rec. III, 308.

nomenclature, Rec. XII, 152.

notes, Rec. IX, 756; XII, 347, 1046.

plant lice on, kerosene emulsion for, Rec. III, 870.

pruning, Rec. VII, 506, 586, 688; IX, 140; X, 641, 758.

races, Rec. XII, 855.

red spider on, kerosene emulsion for, Rec. III, 879.

ringing for propagation, Rec. XI, 151.

- Roses—Continued.
 soil—
 for, Rec. VII, 772.
 v. climate in their culture, Rec. XI, 454.
 summer propagation, Rec. III, 230.
 training and pruning, Rec. VI, 300.
 varieties, Rec. VIII, 888, 890, 986; IX, 140, 358; XI, 154.
 wild forms, Rec. IX, 140.
 wind, for Oklahoma, Rec. XII, 119.
 winter protection, Rec. XII, 549.
 Rosin soap, preparation, Rec. XII, 975.
 Rosinweed—
 caterpillar, notes, Rec. VIII, 146.
 notes, Rec. IV, 669; V, 306; VIII, 703; X, 343.
 Rostock, Germany, Experiment Station, report, Rec. III, 265; V, 657.
 Rotation—
 experiments, Bul. 2, I, 66, 70, 162; Rec. I, 70, 76; II, 642; III, 514, 763; IV, 38, 145, 346, 725; V, 167, 443, 679, 713; VI, 217, 541, 543, 893; VII, 122, 396, 398, 764; VIII, 223; IX, 46, 131, 348, 552, 641, 741; X, 341, 546, 749, 947, 953; XI, 332, 842, 1028, 1037; XII, 44, 441, 536, 547, 841, 1030.
 experiments, summary, Rec. XI, 438.
 in cropping, Rec. III, 107.
 timber cutting, Rec. VII, 962.
 of crops—
 as a preventive of plant diseases, Rec. X, 1051.
 effect on humus content of soils, Rec. IX, 641.
 relation to fertilization, Rec. X, 956.
 systems, Rec. X, 148.
 v. continuous grain cropping, Rec. II, 326.
 Rotations and seasons, Rec. IX, 349.
 Rotative *v.* continuous cropping, Rec. IX, 347.
 Rothamsted Experiment Station—
 history, Rec. III, 895; VIII, 837.
 history of experiments, Rec. V, 447.
 lectures on, Rec. III, 73, 139, 894; V, 272; VII, 343; XII, 407.
 report, Rec. XI, 842.
 Rothamsted—
 experiments, Rec. VI, 486; VII, 343, 415; VIII, 443, 636, 837; XII, 599.
 memoranda, Rec. VII, 532; VIII, 443; IX, 46; XI, 842.
 methods of experimentation at, Rec. V, 272.
 Rottlerin in cotton flowers, Rec. XI, 511.
 Rouget—
 and charbon, inoculation against, Rec. VI, 80.
 vaccination against, Rec. V, 1033.
 Roulers, France, Provincial Laboratory, report, Rec. VII, 745.
 Round worms, intestinal, notes, Rec. II, 79.
 Roup—
 antitoxin, Rec. X, 597.
 catarrhal, of poultry, treatment, Rec. XII, 1092.
 of chickens—
 notes, Rec. XII, 894, 990.
 serum therapy, Rec. XI, 594.
 treatment with antidiphtheria serum, Rec. XII, 395.
 Roup—Continued.
 of fowls—
 differential diagnosis, Rec. XI, 985.
 treatment, Rec. XI, 697, 994.
 Rovarin as an insecticide, Rec. VIII, 321.
 Rove beetle, parasite, notes, Rec. II, 746.
 Rowan leaves, ash analyses, Rec. XII, 1006.
 Rowen—
 analyses, Bul. 2, I, 83; Rec. III, 288; IV, 64; V, 195, 596, 992; IX, 786; X, 474; XI, 882.
 hay—
 analyses, Rec. III, 639; VI, 444; VII, 336; VIII, 426.
 digestibility, Rec. XI, 874.
 of clover—
 analyses, Rec. VIII, 426, 810; IX, 786, 873; XI, 882.
 digestibility, Rec. VIII, 423.
 for soiling, Rec. IV, 480.
 v. cabbage for egg production, Rec. X, 676.
 of mixed grasses for soiling, Rec. IV, 480.
 Royal Commission on Tuberculosis, Rec. VI, 1024; X, 597.
 Royal English Horse and Cattle Condiment, analyses, Rec. III, 157.
 Royal Meteorological Society, Rec. X, 1018.
 Royal Prussian Meteorological Institution, semi-centennial, Rec. IX, 814.
 Royal willow, notes, Rec. IV, 655.
 Rozelle hemp for fiber, Rec. VI, 207.
 Rubber—
 botanical sources, Rec. XII, 647.
 caps for culture tubes, Rec. XI, 714.
 Central American, Rec. VI, 251.
 culture, Rec. XI, 745, 1049; XII, 219, 346.
 culture—
 in Brazil, Rec. XII, 854.
 Mexico, Rec. XII, 246.
 Porto Rico, Rec. XII, 646.
 the Antilles, Rec. VII, 960.
 future supply, Rec. VII, 993.
 industry in West Africa, statistics, Rec. VII, 530.
 new substitute, Rec. XII, 344.
 notes, Rec. VII, 72.
 plant—
 anthracnose, treatment, Rec. X, 266.
 for temperate climates, Rec. XI, 1049.
 history, Rec. X, 825.
 plants—
 latex in, notes, Rec. XII, 1011.
 leaf spot, Rec. IX, 324.
 new, Rec. V, 818.
 notes, Rec. III, 107; VI, 425, 994; XII, 219, 346, 347, 451, 615, 827.
 treatise, Rec. XII, 954.
 preparation for market, Rec. XI, 515; XII, 346, 451.
 production in South America, Rec. XI, 1049.
 trees—
 culture, Rec. XI, 1049.
 effect of capping on sap flow and tree, Rec. XI, 1049.
 waste, analyses, Rec. VII, 380.
 Rubi corylifolii, notes, Rec. IX, 328.
 Rubia tinctorum, notes, Rec. IX, 41.

Rubidium salts, utilization by fungi, *Rec. X*, 417.

Rubus—

- australis*, notes, *Rec. VI*, 728.
- canadensis*—
 - invisus*, notes, *Rec. III*, 523.
 - notes, *Rec. III*, 523.
- roribaccus*, notes, *Rec. III*, 523.
- grossularia*, notes, *Rec. II*, 354.
- hesperius*, n. sp., *Rec. IX*, 451.
- idæus*, notes, *Rec. II*, 354
- occidentalis*, notes, *Rec. II*, 354; *III*, 522.
- phænicolasius*, notes, *Rec. IV*, 916; *XI*, 150.
- saxatilis*, notes, *Rec. V*, 876.
- soribifolius*, notes, *Rec. XI*, 150.
- strigosus*, notes, *Rec. II*, 354; *III*, 522.
- trivialis*, notes, *Rec. III*, 523.
- villosus*—

- analyses, *Rec. III*, 629.
- notes, *Rec. III*, 522.
- vitifolius*, notes, *Rec. V*, 395, 589.

Rubus—

- in France, *Rec. V*, 256.
- white fly, notes, *Rec. X*, 973.

Rudbeckia hirta—

- notes, *Rec. III*, 308; *IX*, 846.
- root system, *Rec. IV*, 46.

Rum—

- analyses, *Rec. VI*, 966.
- manufacture in Porto Rico, *Rec. XII*, 399.
- production of aroma, *Rec. VII*, 530, 809.

Rumenotomy, bovine, *Rec. XI*, 289.

Rumex—

- acetosa*, notes, *Rec. V*, 875, 912.
- acetosella*. (*See* *SORREL*.)
- altissimus*, curculionid larvæ on, *Rec. II*, 293.
- berlandieri*, notes, *Rec. IX*, 142.
- crispus*. (*See* *CURLED DOCK*.)
- hymenosepalus*. (*See* *CANAIGRE*.)
- obtusifolius*—
 - analyses, *Rec. III*, 629.
 - notes, *Rec. III*, 893; *IV*, 699.
- patientia*, notes, *Rec. V*, 875.
- pulcher*, notes, *Rec. III*, 598.
- salicifolius*, notes, *Rec. IV*, 699; *XI*, 28.
- spp., notes, *Rec. V*, 911.
- verticillatus*, notes, *Rec. XI*, 28.

Ruminants—

- comparative anatomy of stomachs of, *Rec. V*, 732.
- digestion experiments with, *Rec. VI*, 6.
- fed on grain alone, *Rec. IV*, 841.
- infusoria in stomachs, *Rec. XI*, 91, 896.

Runners, underground, *Rec. VIII*, 957.

Rupture in cows, treatment, *Rec. VII*, 67.

Rush—

- and sedge hay, fertilizing ingredients, *Rec. V*, 391.
- river club, analyses, *Rec. VI*, 404.
- scaly club, analyses, *Rec. IV*, 769, 770.
- sea club—
 - analyses, *Rec. II*, 486; *VI*, 404.
 - notes, *Rec. II*, 486.
- sharp-pointed, analyses, *Rec. VI*, 404.
- slender, analyses, *Rec. IV*, 769, 770.

Rushes—

- horsetail, notes, *Rec. V*, 720.
- value for forage in Sweden, *Rec. IV*, 772.

Russia—

- Agricultural Council, proceedings, *Rec. X*, 398.
- agricultural—
 - improvements, *Rec. X*, 198.
 - industries, report, *Rec. X*, 1039.
 - instruction, *Rec. X*, 197.
 - science in, *Rec. IX*, 204.

agriculture and forestry, *Rec. V*, 543.

Department of Agriculture, agricultural bacteriological laboratory, report, *Rec. XI*, 393.

Russian—

- Ministry of Agriculture, *Rec. V*, 827.
- Polish horned cattle, exhibit, *Rec. XI*, 778.
- tree fruits in America, *Rec. VII*, 308.
- waters (blister fluid), *Rec. XI*, 496.

Rust—

- distortions, *Rec. VIII*, 895.
- in wheat, conference, *Rec. VIII*, 498.
- mite, notes, *Rec. V*, 409; *IX*, 571.
- red flour beetle, notes, *Rec. VIII*, 610; *IX*, 65.
- species of Australia, *Rec. V*, 438.
- spores, germinative power, *Rec. X*, 561.

Rusts— (*See also* *BARLEY*, *OATS*, *RYE*, *WHEAT*, etc.)

- ability to withstand, *Rec. VII*, 311.
- æcidial stages, *Rec. VII*, 788.
- and smuts of Nebraska, *Rec. I*, 253.
- conidia formation, *Rec. VII*, 838.
- crown—

- of grain, alternation of hosts, *Rec. V*, 653.
- studies, *Rec. IX*, 149, 363.

culture experiments, *Rec. VII*, 224, 512; *IX*, 960; *XI*, 360.

development, *Rec. VI*, 147.

deviations from generation transformations, *Rec. V*, 650.

dissemination by wind, *Rec. IX*, 1061.

distribution, *Rec. XII*, 461.

duration of winter spores, *Rec. XI*, 59.

effect on vitality of seeds, *Rec. II*, 4.

fungicides for, *Rec. V*, 497; *VI*, 307.

heteræcious, *Rec. VIII*, 749.

heteræcious, culture experiments, *Rec. XI*, 59, 360.

in Switzerland, notes, *Rec. XI*, 468.

influence of climate on, *Rec. VI*, 645.

inoculation experiments, *Rec. VII*, 225; *IX*, 760.

new species, *Rec. III*, 327.

of cereals—

copper sulphate for, *Rec. VII*, 876.

dissemination by barberry bush, *Rec. IX*, 660, 759; *X*, 58.

history and treatment, *Rec. VIII*, 412.

in Austria, notes, *Rec. XI*, 468.

Austria-Hungary, *Rec. XII*, 461.

Belgium, *Rec. XII*, 656.

the United States, *Rec. XI*, 942.

investigations, *Rec. VI*, 311, 432; *VII*, 39, 787, 964; *IX*, 148, 1062; *X*, 58, 316, 365, 455, 653, 763, 864.

notes, *Rec. II*, 4; *III*, 172; *V*, 497, 653; *VI*, 224, 559; *IX*, 851, 960; *X*, 455, 652; *XI*, 361, 817, 942, 948, 1060; *XII*, 254, 261, 656.

iron compounds for, *Rec. IV*, 955.

parasitism, *Rec. VI*, 647; *VII*, 225

Rusts—Continued.

- of cereals—continued.
 - prevalence in 1892, Rec. IV, 223.
 - treatment, Rec. IV, 954, 955; VI, 224, 437, 1001; IX, 960; X, 559.
- of horticultural plants, Rec. XI, 758; XII, 1056.
- relationship of æcidial and teleutospore forms, Rec. XII, 355.
- spore membranes, Rec. VII, 371.
- studies, Rec. IX, 361; X, 455; XII, 567.
- treatment, Rec. V, 497; VI, 307.
- viability of winter spores, Rec. X, 57.

Ruta-baga—

- Phoma disease, notes, Rec. XII, 256.

rot—

- notes, Rec. VI, 268, 998.
- undetermined species, Rec. IV, 400.

Ruta-bagas—

- analyses, Rec. II, 340, 580, 589; III, 859; VI, 37, 410; VII, 296, 667; VIII, 152; IX, 175; XI, 71.
 - and turnips, culture, Rec. VI, 46.
 - as a cause of bitter milk, Rec. V, 721, 971, 1044.
 - a rotation crop, Rec. V, 713.
 - barnyard manure for, Rec. V, 706, 713, 933; VI, 891.
 - club root, treatment, Rec. XI, 254.
 - conditions affecting feeding value, Rec. XII, 1038.
 - culture, Rec. IV, 725; X, 955.
 - culture experiments, Bul. 2, I, 89; Rec. II, 580; VI, 985; VIII, 223, 407; IX, 131; X, 237, 238.
 - digestibility, Rec. II, 459; IV, 570.
 - fertilizer experiments, Rec. V, 706, 713, 933; VI, 399, 891; VII, 32; IX, 340; X, 848; XI, 838, 1027; XII, 441, 547.
 - for sheep, Rec. XI, 1071.
 - germination, Rec. I, 295.
 - Oidium balsamii* on, Rec. V, 881.
 - planting at different—
 - depths, Rec. X, 238; XI, 631.
 - distances, Rec. X, 238.
 - root growth, Rec. XII, 338.
 - rotting, Rec. VIII, 141.
 - thinning, Rec. X, 238.
 - varieties, Bul. 2, II, 90; Rec. I, 87; II, 69, 109, 395, 607; III, 480; V, 189, 623, 624, 625, 983; VI, 36, 416; VII, 676; VIII, 973; IX, 444; X, 237; XI, 633.
 - v. hay and rice meal for sheep, Rec. II, 464.
 - yield and food value per acre, Rec. IV, 568.
- Rutherglen, Australia, College of Viticulture, Rec. VIII, 94.
- Rütti-Zollkofen, Berne, Switzerland, Dairy School, report, 1899, Rec. X, 790; XII, 90.

Rye—

- after corn, Rec. IV, 251.
- after-ripening and germination, Rec. XI, 1054.
- Alinit experiments, Rec. XII, 532.
- amount required to sustain a cow, Rec. X, 430.
- analyses, Rec. III, 890; IV, 470; VI, 1008; VII, 336, 396; VIII, 520, 1004; IX, 175; X, 946; XI, 777; XII, 478.

Rye—Continued.

- and oats, mixed seeding, Rec. VIII, 125.
- sand vetch for soiling, Rec. V, 256.
- wheat flour for bread making, Rec. IV, 694.
- as a soiling crop, Rec. VI, 717.
- a soiling crop in winter, Rec. II, 192, 271.
- an adulterant of flour, Rec. XI, 482.
- ash analyses, Rec. III, 890; X, 873.
- baking qualities, Rec. VII, 155.
- bran—
 - adulteration, Rec. III, 257, 264.
 - analyses, Rec. I, 15; II, 589; III, 878; VI, 444; VIII, 153, 154, 426; XI, 279; XII, 70.
 - cost and valuation, Bul. 2, I, 53.
 - digestion experiments, Rec. V, 1032.
 - examination, Rec. V, 720.
 - v. whole grain for feeding, Rec. VI, 1011.
- bread—
 - analyses, Rec. IV, 59.
 - digestibility, Rec. IX, 872; X, 375; XI, 175.
 - v. wheat bread, Rec. XI, 183.
- breeding, Rec. X, 349, 955, 1039.
- brown rust—
 - sources of infection, Rec. XI, 554.
 - studies, Rec. XII, 567.
- by-products, Rec. X, 583.
- change of seed, Rec. VII, 204.
- characteristics of young plants, Rec. XII, 442.
- condition—
 - and acreage, Rec. III, 53, 107.
 - August, 1892, Rec. IV, 283.
- cost and profit in growing, Rec. V, 576.
- crop—
 - foreign, Rec. XII, 698.
 - of Hungary, 1899, Rec. XI, 698.
 - statistics, Rec. V, 612; VI, 582.
- culture, Rec. XI, 841.
- culture experiments, Rec. III, 85, 145, 599, 763; IV, 145, 346, 825; VI, 296, 532; VII, 120, 295, 860; XII, 1039.
- digestibility—
 - and nutritive value, Rec. V, 811.
 - at different cuttings, Rec. VI, 717.
- distribution of seed, Rec. IV, 436.
- drilling, Rec. VII, 397.
- effect of—
 - climate on size of grain, Rec. XII, 737.
 - season, Rec. VI, 208.
- ergot in Iowa, Rec. IV, 414.
- feed, analyses, Rec. I, 15; III, 878; V, 66, 992; VI, 331; VII, 336; XII, 70, 169, 281.
- feeding value, Rec. V, 1032.
- fertilizer—
 - assimilation, Rec. VIII, 44.
 - experiments, Rec. III, 529; IV, 27, 251, 470; V, 807; VI, 208, 411, 418; VII, 32, 209, 297, 579, 679, 942; VIII, 224, 399; X, 337; XI, 141, 239, 526, 540, 732; XII, 125, 338, 931.
 - requirements, Rec. VIII, 44.
- field experiments, Rec. II, 395, 663.
- flour—
 - analyses, Rec. IV, 59.
 - and wheat flour, method of distinguishing, Rec. IV, 389.
 - nutritive value as affected by grinding, Rec. IX, 472.

Rye—Continued.

- fodder, analyses, Rec. II, 667.
- for hay, Rec. V, 578.
- soiling, Rec. III, 145; IV, 480.
- from different-sized seed, Rec. VII, 204.
- fungus disease, Rec. VI, 312.
- German and Russian, Rec. VII, 32.
- germination—
 - as affected by different salts, Rec. X, 1026.
 - affected by temperature, Rec. XI, 156.
 - experiments, Bul. 2, I, 30; Rec. V, 628, 910; IX, 454.
- grain, composition at different stages of ripeness, Rec. XI, 636.
- grains—
 - green *v.* yellow for seeding, Rec. XI, 1029.
 - transmission of color, Rec. IX, 744.
- green—
 - analyses, Bul. 2, II, 129; V, 194; IX, 682; XII, 378.
 - digestibility, Bul. 2, II, 128, 129.
 - for cows, Rec. X, 295.
- green manuring for, Rec. V, 701.
- ground, analyses, Rec. VI, 569; XII, 378.
- growing after potatoes, Rec. X, 740.
- hardiness, Rec. VII, 300.
- hay—
 - analyses, Rec. VI, 153.
 - wild, analyses, Rec. VIII, 810.
- hybridization, influence of, Rec. VII, 204.
- injuries by frost, Rec. XII, 235.
- injury—
 - by gas from superphosphate factory, Rec. VII, 225.
 - to grain by thrashing, Rec. XII, 42.
- insects affecting, Rec. VIII, 507.
- kainit for, Rec. VIII, 224.
- leaves, affected by *Marsonia secalis*, n. sp., Rec. X, 155.
- lodging, loss from, Rec. VII, 496.
- meal—
 - analyses, Rec. VI, 444; VIII, 1004; X, 678; XII, 281.
 - digestibility, Rec. VII, 317.
 - for cows, Rec. XII, 678.
 - v.* wheat meal for pigs, Rec. VIII, 423.
- middlings, analyses, Rec. III, 878; X, 275.
- mineral constituents of sound and diseased, Rec. VII, 512.
- molding and sprouting, Rec. XI, 619, 1036; XII, 108.
- monstrosities, Rec. XI, 540.
- nematode disease, notes, Rec. XII, 462.
- new species, Rec. XI, 319.
- nitrate of soda for, Rec. III, 655; VII, 679, 681; XI, 239.
- nitrate of soda and perchlorate of potash for, Rec. VIII, 762; IX, 552; X, 235; XI, 918.
- nitrogen in dried blood and leather refuse for, Rec. XI, 526.
- Petkus, origin, Rec. XI, 1038.
- phosphate fertilizers for, Rec. V, 807.
- plowing under to prevent potato scab, Rec. X, 453.
- production—
 - and distribution, Rec. IV, 845.
 - in Europe, Rec. III, 107.
 - the United States, Rec. III, 253.

Rye—Continued.

- proteids, Rec. VII, 233.
 - relation of quality to color of grain, Rec. XII, 338.
 - rotation experiments, Rec. XII, 1030.
 - Russian, Rec. VII, 32.
 - rust, notes, Rec. III, 10; IV, 50, 414; XI, 943; XII, 254.
 - seed, comparison of old and new, Rec. VII, 204.
 - seeding, thick and thin, Rec. VII, 205.
 - silage, analyses, Rec. VIII, 508.
 - smut, notes, Rec. III, 10; IV, 50.
 - spoiled, bread from, Rec. VI, 663.
 - spring—
 - condition, Rec. III, 183.
 - varieties, Rec. X, 240; XI, 629, 632, 833; XII, 229.
 - stalks, internodes, Rec. V, 539.
 - straw—
 - composition, Rec. IX, 981.
 - digestibility, Bul. 2, I, 132.
 - extracted, feeding value, Rec. XI, 771.
 - fertilizing constituents, Bul. 2, I, 133.
 - regularity in structure, Rec. V, 253.
 - weak; analyses, Rec. XII, 642.
 - tolerance of sodium perchlorate, limit, Rec. XI, 918.
 - varieties, Rec. II, 7, 240, 395, 663; III, 85, 356, 361, 599, 703; IV, 411, 824; V, 347, 577, 871, 1074; VI, 44, 295, 418, 543, 635, 807; VII, 200, 210, 300, 498; IX, 446; X, 1037; XI, 442, 538; XII, 328, 1036, 1039.
 - v.* rye bran for pigs, Rec. V, 227.
 - silage for cows, Rec. V, 73.
 - wheat bran for pigs, Rec. V, 429.
 - water absorption of seed, Rec. XI, 1056.
 - wild— (*See also* ELYMUS.)
 - analyses, Rec. II, 487; VI, 404; VIII, 810.
 - notes, Rec. II, 487; IV, 925; VII, 384; X, 343.
 - winter—
 - analyses, Rec. VII, 155.
 - as a cover crop for orchards, Rec. X, 252.
 - affected by depth of planting, Rec. IX, 930.
 - affected by light, Rec. IX, 930.
 - affected by nitrate of soda, Rec. VII, 681.
 - field experiments, Rec. II, 667.
 - Helminthosporium gramineum* on, Rec. X, 155.
 - nitrogenous fertilizers for, Rec. VII, 297.
 - varieties, Rec. X, 537; XI, 629; XII, 532.
 - yield—
 - and value, Rec. II, 608.
 - in the United States, Rec. III, 326.
 - per acre, Rec. IV, 431; V, 328.
- Rye grass—
- analyses, Rec. II, 329.
 - Australian, notes, Rec. V, 577.
 - culture experiments, Rec. VI, 294; XII, 133.
 - digestibility, Rec. X, 1082.
- English—
- analyses, Rec. IV, 646; VI, 404, 569; VIII, 810; XII, 471.
 - culture experiments, Bul. 2, I, 190; V, 38; VI, 294, 296, 405, 531, 807.
 - notes, Rec. II, 238, 395; V, 679, 910; VI, 542; XII, 539.
- French, notes, Rec. V, 910.

Rye grass—Continued.

Italian—

- analyses, Rec. II, 580; V, 64.
- as a forage plant, Rec. III, 29.
- culture, Rec. III, 860.
- culture experiments, Rec. IV, 28, 248; V, 38; VI, 296, 405, 531; VII, 120; X, 244.
- fertilizer experiments, Rec. XII, 337.
- notes, Rec. II, 69, 601, 632; IV, 248; V, 577, 781, 870, 871, 910; IX, 833; X, 244; XII, 538.
- plat experiments, Rec. II, 632.
- viability of seed, Rec. XI, 158.

Japanese, culture experiments, Rec. VI, 807.
notes, Rec. II, 69, 594, 658; VI, 215, 542.

perennial—

- analyses, Rec. IV, 646; VIII, 810.
- as a forage plant, Rec. III, 29, 51.
- culture experiments, Rec. I, 121; III, 85, 159; IV, 38, 39, 248; VIII, 401.
- for pastures and meadows, Rec. II, 238.
- notes, Bul. 2, II, 84; Rec. II, 69, 238, 321, 594, 601, 632, 740; IV, 248; V, 679, 870; VII, 115; X, 244; XII, 471, 539.
- plat experiments, Rec. II, 632.
- structural character, Rec. IX, 1027.
- viability of seed, Rec. XI, 158.

seed—

- as affected by fertilizers, Rec. XI, 1029.
- germination test, Rec. VI, 429.

statistics, Rec. II, 749.

wild. (See RYE, WILD.)

Sabal serrulata, analysis, Rec. IX, 225.

Sabine fusca, structural characters of larvæ, Rec. VIII, 1002.

Saccharimeter—

- standardized, Rec. XI, 112.
- weights, normal, Rec. X, 21.

Saccharimeters, graduation, Rec. X, 21.

Saccharimetric scales, unification, Rec. X, 21.

Saccharin—

- commercial study, Rec. VIII, 105.
- detection in foods, Rec. XI, 312; XII, 108.
- determination in beer, Rec. VI, 867.
- substances, determination in urine, Rec. VIII, 563.

Saccharomyces—

- anomalous*, notes, Rec. VII, 20, 95.
- apiculatus*, notes, Rec. VII, 95.
- cerevisiæ*, notes, Rec. II, 618; X, 123.
- croci*, notes, Rec. IX, 763.
- ellipsoideus*—
 - in grape must, Rec. VII, 20.
 - notes, Rec. X, 123; XI, 260.
- farctinosus*, notes, Rec. IX, 495.
- guttulatus*, study, Rec. X, 1017.
- japonicus*, n. sp., Rec. IX, 627.
- keiskeana*, n. sp., Rec. IX, 627.
- ludwigia*, notes, Rec. VII, 20, 876; X, 123.
- marzianus*, enzym of, Rec. VII, 95.
- membranefaciens*, notes, Rec. VII, 20; X, 123.
- pastorianus*, notes, Rec. X, 123.
- pombe*, for fermenting raffinose, Rec. XI, 715.
- roseus*, notes, Rec. VII, 659.
- subcutaneous tumefaciens*, notes, Rec. X, 124.
- zopfii* in sugar manufacture, Rec. IX, 696.

Saccharomyces—

- formation of enzymes, Rec. XII, 915.
- origin, Rec. IX, 363.
- physiology and morphology, Rec. XII, 915.

Saccharomycetes—

- biology, Rec. VIII, 290, 960.
- origin, Rec. VIII, 960; X, 123.
- studies, Rec. VII, 928, 929.

Saccharose— (See also SUCROSE.)

- and betose, Rec. VII, 557.
- determination, Rec. VII, 91; VIII, 460.
- determination—
 - in condensed milk, Rec. X, 117.
 - malt, Rec. VI, 868; VIII, 460.
 - molasses from beets and sugar cane, Rec. X, 96.
 - presence of lactose and glucose, Rec. X, 117.
 - wine, Rec. IX, 1024.

formation during—

- germination of barley, Rec. V, 728.
- ripening of apple, Rec. V, 728.
- identification, Rec. X, 920.
- occurrence in roots of gentian, Rec. XII, 716.
- reaction, Rec. VII, 271.
- reversion in sugar cane, Rec. VI, 295.
- rotation as affected by temperature, Rec. XII, 611.

Saccharum officinarum, forms and colors, Rec. IV, 783.

Saccommidæ in Idaho, Rec. III, 184.

Sachaline—

- analyses, Rec. VI, 404; VIII, 714; XII, 471.
- as a forage plant, Rec. IV, 985; V, 116; VI, 634; VII, 397.
- culture experiments, Rec. V, 925; VI, 984; VII, 27; VIII, 124, 400, 401, 687; IX, 41, 253; X, 245.
- notes, Rec. V, 128, 346, 820, 1030; VI, 45, 215, 542, 721, 732, 808, 889, 984; VII, 27, 116, 407; VIII, 124, 491; IX, 41; X, 245; XI, 1032; XII, 329.

Sach's iodine experiment, Rec. V, 818.

Sachsia, a new genus of yeast-like fungus, Rec. VI, 18.

Saddleback caterpillar, notes, Rec. IV, 838; VIII, 905.

Saffron. (See CROCUS SATIVUS.)

Sage—

- culture, Rec. IX, 357.
- sweet, notes, Rec. VII, 947.
- white, notes, Rec. X, 343; XI, 1034.
- wild, notes, Rec. X, 343.

Sagebrush—

- analyses, Rec. XI, 314.
- notes, Rec. III, 522; X, 343; XII, 827.
- prairie, notes, Rec. X, 343.

Sagittaria curculio, notes, Rec. I, 292.

Sago culture in Borneo, Rec. VI, 728.

Sahara Desert—

- fixation of sand dunes, Rec. VII, 290, 664.
- utilization, Rec. VI, 513.

Sainfoin—

- adaptation, Rec. III, 596.
- analyses, Rec. II, 329; III, 158; V, 171; VI, 294, 404, 569; VII, 155; X, 72.
- as a cover crop for orchards, Rec. X, 251.
- a forage plant, Rec. III, 28, 30, 51.
- culture, Rec. X, 433.
- culture experiments, Bul. 2, I, 30; Rec. I, 122; II, 580; III, 85, 158, 159; IV, 39, 646, 661; V, 38, 171; VI, 34, 294, 296, 405, 531; VII, 295; VIII, 687; X, 244.

Sainfoin—Continued.

- disease, notes, Rec. VII, 39, 141.
- experiments in seeding, Rec. XI, 441.
- fertilizer experiments, Rec. I, 80; XII, 641.
- irrigation experiments, Rec. XII, 641.
- notes, Rec. I, 80; II, 70, 329, 650; V, 577, 679, 870, 871, 910; VI, 34, 294; XII, 328.
- seeding experiments, Rec. XII, 441.

Sake—

- brewing, Rec. VII, 530.
- fungus, Rec. VII, 20.
- yeast—
 - effect on grape juice, Rec. IX, 626.
 - investigations, Rec. VII, 659.
 - origin, Rec. IX, 625.

Sal coppice forests of Oudh, Rec. XI, 1052.

Sal forests, improvement fellings, Rec. XI, 1052.

Salad—

- oils, physical and chemical properties, Rec. XII, 906.
- plants—
 - and plant salads, Rec. VIII, 790.
 - blanching, Rec. VI, 819.
 - fertilizer requirements, Rec. XI, 250.
 - notes, Rec. VI, 298.

Salices, cross fertilization, Rec. X, 418.

Salicineæ, embryology, Rec. VI, 195.

Salicylic acid—

- as an antiseptic, Rec. IV, 74.
- an insecticide, Rec. II, 319.
- a preservative for cider, Rec. X, 381.

detection in—

- beer, Rec. VII, 18.
- food, Rec. VIII, 742.
- milk, Rec. XI, 419, 705.
- wine, Rec. VI, 868.

determination, Rec. IV, 613; VIII, 466.

effect on ripening of cheese, Rec. V, 208, 1062.

for oat smut, Rec. II, 639.

- wheat smut, Rec. II, 221.

in beer, Rec. IX, 419.

food, Rec. V, 454.

fruit juices, Rec. IX, 419.

wines, Rec. VII, 91, 184, 186; IX, 419.

Saline—

- deposits, analyses, Rec. III, 412.
- soils, plants of, Rec. IX, 812, 921.
- solutions, effect on fibrin, Rec. VI, 869.

Salisburia adiantifolia. (See GINGKO.)

Saliva—

- action as affected by acids, Rec. XII, 1077.
- ferments as affected by borax, Rec. XI, 962.
- oxy-ferments of, Rec. XII, 118.

Salivary glands of hymenoptera, Rec. V, 821.

Salix— (See also WILLOW.)*acutifolia*, notes, Rec. IV, 655; V, 426.*alba*, notes, Rec. IV, 655; VIII, 604.*amygdaloides*, notes, Rec. III, 521.*aurea*, notes, Rec. IV, 655.*caprea*—

- notes, Rec. VI, 144.
- pendula*, notes, Rec. IV, 655.

cernua, notes, Rec. VI, 144.*cordata*—

- notes, Rec. VII, 468.
- vestita*, notes, Rec. III, 521.

Salix—Continued.*flavescens capreoides*, notes, Rec. VII, 508.*fragilis*—

- notes, Rec. XII, 153.
- rate of growth, Rec. IV, 45.

humilis, notes, Rec. III, 521.*lasiantha caudata*, notes, Rec. VII, 508.*laurifolia*, notes, Bul. 2, II, 87; Rec. IV, 655; XII, 153.*longifolia*, notes, Rec. III, 521.*lucida*, notes, Rec. III, 521.*missouriensis*—

- and *Salix cordata* identity, Rec. VII, 776.
- notes, Rec. VII, 508.

myrsinites, notes, Rec. VI, 144.*napoleonis*, notes, Rec. IV, 655.*nigra*—

- notes, Rec. III, 521.
- Edema in roots, Rec. IX, 457.

piperi, notes, Rec. VII, 775.*purpurea*—

- notes, Rec. XI, 458.
- pendula*, notes, Rec. IV, 655.
- regalis*, notes, Rec. IV, 655.
- rosmariifolia*, notes, Rec. III, 788.

rostrata, notes, Rec. III, 521.*taxifolia*, notes, Rec. VII, 508.*tristis*, notes, Rec. III, 521.*viminialis*, notes, Rec. XI, 458.*vitellina aurea*, notes, Rec. VIII, 604.*Salix*, life history, Rec. VIII, 867.

Salmon-canning industry, Rec. V, 799.

Salmonberry—

- culture, Rec. VII, 405.
- culture experiments, Rec. IX, 50.
- Salol as an antiseptic, Rec. IV, 74.

Salpichroa rhomboidea, notes, Rec. X, 854.

Salsify—

- analyses, Rec. XII, 471, 907.
- black, white rust, Rec. XI, 758.
- culture, Rec. IX, 357.
- culture—

- and use, Rec. VII, 504.
- experiments, Rec. VI, 423.

fertilizer formula, Rec. XII, 851.

grafted on *Scorzonera*, Rec. V, 1089.

notes, Rec. XII, 898.

root rot, notes, Rec. III, 307.

Spanish, notes, Rec. III, 618.

spring lettuce grafted on, Rec. V, 1089.

varieties, Bul. 2, II, 89; Rec. I, 254; VI, 398, 783, 785, 988; VII, 203, 213, 405; VIII, 977; XI, 51.

Salsola kali tragus. (See THISTLE, RUSSIAN.)

Salsolaceæ, Pacific Coast species, Rec. XI, 636.

Salt—

- analyses, Rec. IV, 64; V, 194; VI, 401; VII, 112, 295, 854; IX, 919; XI, 917; XII, 717, 840, 907.
- and Bordeaux mixture for grape black rot, Rec. XI, 262.

as a fertilizer, Rec. I, 215; V, 623, 708, 712, 713, 716.

a fertilizer for oats, Rec. III, 791.

at different altitudes, Rec. III, 197.

beds, oceanic formation, Rec. XI, 704.

common, effect on silage, Rec. XII, 822.

Salt—Continued.

content of—

- clay soils, Rec. V, 346.
- soil, determination by electrical method, Rec. IX, 535; X, 30; XI, 325.
- Washingtonia filamentosa*, Rec. VII, 749.

dairy—

- analyses, Rec. II, 582; X, 883.
- studies, Rec. XI, 585, 999; XII, 91.
- tests, Rec. VII, 626.

determination of potassium carbonate, Rec. X, 20.

effect on—

- action of rennet, Rec. XI, 584.
 - bacteria, Rec. XI, 594.
 - cheese, Rec. V, 1061; VIII, 342.
 - color of butter, Rec. XII, 182, 593.
 - digestibility, Rec. IV, 974; V, 259, 531; VIII, 620.
 - excretion of nitrogen, Rec. III, 928.
 - excretion of nitrogen from the body, Rec. IV, 784.
 - flocculation of clay, Rec. V, 695.
 - growth of mold, Rec. XI, 683.
 - metabolism of albuminoids, Rec. V, 259, 531.
 - phenols, Rec. VIII, 472.
 - soil moisture, Rec. XII, 298.
 - taste of butter, Rec. X, 493.
- for asparagus, Rec. VII, 584; X, 350.
- banana disease, Rec. VII, 39.
 - cattle, Rec. VI, 663.
 - cows, Bul. 2, 1, 108; Rec. VI, 843.
 - destroying weeds, Rec. XII, 249.
 - eradicating Canada thistle, Rec. XI, 462.
 - gapeworms, Rec. VII, 426.
 - hens, Rec. III, 708; IV, 262.
 - lodging of oats, Rec. IX, 45.
 - orange hawkweed, Rec. VIII, 987, 988.
 - sweet-potato diseases, Rec. III, 307.
 - wheat smut, Rec. II, 221.
 - wireworms, Rec. III, 448.

Salt grass—

- analyses, Rec. VI, 404; VIII, 331.
- fertilizer experiments, Rec. VI, 806.
- notes, Rec. II, 486; VIII, 306.
- red, analyses, Rec. II, 487.

Salt hay, analyses, Rec. I, 80; II, 581; IV, 64.

Salt herrings, analyses, Rec. III, 13.

Salt Lake of Urmi analyses of waters, Rec. XI, 434.

Salt marsh grasses, Rec. VIII, 781.

Salt marsh hay, Rec. X, 698.

Salt marsh hay—

- analyses, Rec. X, 472.
- digestibility, Rec. X, 473.
- experiments, Rec. XI, 576.
- for milk production, Rec. X, 485.

Salt marsh plants of northern Kansas, Rec. X, 319.

Salt marshes—

- cutting and curing hay of, Rec. II, 486.
- extent in Connecticut, Rec. II, 486.
- forage plants of, Rec. II, 486.

Salt—

- sickness, notes, Rec. IV, 360.

solutions—

- absorption in small intestine, Rec. IX, 1079.

Salt—Continued.

solutions—continued.

- for potted plants, Rec. X, 49.
- movement in soils, Rec. XII, 620.

water algæ, fixing and preparation, Rec. IX, 1027.

water, effect on—

- cultivated plants, Rec. VII, 680; XI, 24.
- peach trees, Rec. VIII, 494.
- soil, Rec. XI, 326.

water—

- for peach yellows, Rec. VI, 437.
- in Nebraska, Rec. XII, 694.

works refuse, analyses, Rec. VI, 274.

(See also SALTS.)

Saltbush— (See also ATRIPLEX.)

adaptation, Rec. III, 596.

analyses, Rec. X, 678.

Australian—

- analyses, Rec. VI, 718; VIII, 688, 714.
- culture experiments, Rec. X, 244, 245.
- hay, analyses, Rec. VIII, 714.
- notes, Rec. VI, 717, 721; VII, 947; X, 546; XI, 1034; XII, 936.
- culture experiments, Rec. VIII, 596, 687; X, 244, 245.
- mealy, notes, Rec. XII, 936.

Saltbushes—

- ash analyses, Rec. XI, 638.
- culture in California, Rec. XI, 636.
- fodder value, Rec. XI, 636.
- formation of black alkali, Rec. XI, 1099.
- germination tests, Rec. XI, 636.
- growth on different soils, Rec. XI, 636.
- in New Zealand, Rec. XI, 842.
- notes, Rec. VIII, 689; X, 546, 1013; XI, 927; XII, 219, 945, 1038.
- root systems, Rec. XI, 637.
- vegetation characteristics, Rec. XI, 636.

Salt peter—

- analyses, Rec. V, 164.
- bacteria feeding on, Rec. VI, 196.
- determination of perchlorate in, Rec. VIII, 859, 860.
- effects on animal body, Rec. XI, 962.
- from tobacco stems, analyses, Rec. VIII, 377.
- lime, analyses, Rec. X, 1031.
- poisoning cattle, Rec. X, 794.
- waste, analyses, Rec. II, 232, 581, 730; III, 162; IV, 26; V, 777; VI, 287; VII, 195; VIII, 389, 877.

Salts—

- and fertilizer ingredients, effect on moisture of the soil, Rec. IX, 429.
- decomposition by water, Rec. VII, 834.
- effect on—
 - form and structure of plants, Rec. VIII, 744.
 - germination of wheat, Rec. VI, 904.
 - meadows, Rec. VII, 497.
 - soil moisture, Rec. XI, 716.
 - temperature of the soil, Rec. IX, 735.
- for precipitation of carbohydrates, Rec. IX, 25.
- Glauber's, effect on udder and milk of cows, Rec. V, 918.
- importance in nutrition, Rec. VIII, 537.
- in alkali soils, Rec. VI, 791; VII, 173, 568, 753; VIII, 537, 574, 677, 966.

Salts—Continued.

- in food, effect on composition of bones and teeth, Rec. III, 579.
- inorganic, effect on conidia formation, Rec. XI, 424; XII, 422.
- inversion of sugar by, Rec. VII, 833; VIII, 286; IX, 1023.
- metallic, for destroying weeds, Rec. XII, 1050, 1052.
- mineral, effect on soil, Rec. IX, 237.
- nutrient, effect on turgor, Rec. IX, 919.
- nutritive, chemical composition and value, Rec. IX, 480.
- of copper for grape black rot, Rec. II, 267; VII, 312; VIII, 41.
- cultivated soils, studies, Rec. XII, 28.
- soil, effect on sugar-cane juice, Rec. XI, 146.
- preservative, Rec. IX, 981.
- soluble—
 - absorption by plants, Rec. XI, 1009; XII, 313.
 - determination in soils, Rec. XII, 29.
 - volatilization, Rec. VII, 459.
- Sambucus*— (See also ELDER.)
 - canadensis*—
 - analyses, Rec. III, 629.
 - notes, Rec. III, 522, 893; IV, 656.
 - nigra aurca*, notes, Rec. IV, 656; VIII, 314.
 - racemosa*, notes, Rec. IV, 656.
- Samphire, ash constituents, Rec. III, 373.
- Samples, mill for grinding, Rec. II, 483.
- Sampling devices, Rec. XII, 908.
- San José scale—
 - allied species in Europe, Rec. X, 373, 872; XI, 64.
 - and oyster-shell bark-louse, distinctions, Rec. VIII, 613.
 - and the horticulturist, Rec. XI, 1066.
 - bibliography, Rec. X, 371; XI, 1066.
 - distribution, Rec. X, 371; XI, 274.
 - distribution, means, Rec. IX, 1067; XII, 665.
 - food plants, Rec. VI, 1003; IX, 255; X, 371.
 - fungus disease, Rec. IX, 575, 1068; X, 660, 971.
 - identity, Rec. VII, 698.
 - in Connecticut, Rec. IX, 575; X, 1061.
 - Delaware, Rec. VIII, 502; IX, 73, 463.
 - Eastern United States, Rec. V, 900, 935; VI, 439, 441, 651; VIII, 501.
 - Georgia, Rec. X, 160.
 - Illinois, Rec. IX, 153; XI, 654.
 - Iowa, Rec. X, 373.
 - Kentucky, Rec. IX, 261.
 - Maryland, Rec. VIII, 702.
 - Massachusetts, Rec. VIII, 418; X, 373, 661; XI, 560.
 - Michigan, Rec. X, 61.
 - Missouri, Rec. IX, 862.
 - Nevada, Rec. VIII, 67.
 - New Jersey, Rec. VI, 152, 651, 832; VIII, 413; X, 161, 1059.
 - New Mexico, Rec. VIII, 611.
 - New York, Rec. IX, 72.
 - North Carolina, Rec. IX, 154, 319.
 - Ohio, Rec. VII, 42; VIII, 998.
 - Oregon, Rec. IX, 767.
 - Pennsylvania, Rec. IX, 967.

San José scale—Continued.

- in Virginia, Rec. VIII, 557; IX, 255; XI, 66.
- West Virginia, Rec. IX, 662.
- investigations, Rec. X, 1068.
- larvæ, Rec. XI, 657.
- legislation, Rec. X, 371, 771; XI, 866; XII, 975.
- natural enemies, Rec. VII, 882; VIII, 1001; IX, 571, 1067; X, 160, 162, 861; XII, 366, 861.
- notes, Rec. II, 70; III, 54; IV, 203, 418; V, 884, 900, 935, 1088; VI, 236, 441, 652, 832, 1001, 1008; VII, 42, 143, 147, 230, 314, 411, 514, 593, 790, 882; VIII, 68, 148, 418, 500, 501, 613, 911; IX, 138, 154, 160, 255, 261, 319, 371, 570, 662, 670, 672, 767, 856, 962, 964; X, 62, 66, 68, 164, 273, 369, 373, 457, 459, 569, 766, 771, 866, 867, 1059, 1067; XI, 64, 170, 173, 369, 370, 371, 563, 565, 657, 863, 952, 957, 958, 959; XII, 68, 264, 271, 365, 368, 468, 580, 664, 861, 862, 869, 997, 1057, 1058.
- odor, Rec. X, 771.
- on American fruit, Rec. X, 1061; XI, 655, 958; XII, 68, 870, 971.
- Long Island, Rec. VI, 443.
- origin, Rec. X, 373; XI, 173, 951.
- posterior abdominal segment, Rec. XII, 869.
- quarantine regulations, Rec. XI, 275.
- rearing, Rec. XII, 770.
- remedies, Rec. III, 54, 889; IV, 852; V, 1088; VI, 236, 440; VII, 42, 44, 147, 230, 514; VIII, 68, 147, 148, 413, 417, 418, 501, 613, 1001; IX, 155, 255, 261, 463, 664, 665, 1066, 1067; X, 160, 162, 371, 373, 468, 566, 661, 767, 771, 863, 975, 1059, 1064; XI, 66, 173, 267, 271, 274, 473, 474, 476, 560, 561, 654, 760, 762, 866, 958, 959, 1062, 1064; XII, 163, 366, 860, 869, 971, 1065.
- value of inspector's certificate, Rec. XI, 173.
- v. Putnam scale, Rec. X, 766.
- Sanatol, use, Rec. XII, 168.
- Sand—
 - and sponge filters for milk, Rec. IV, 988; V, 1043, 1047.
 - as an adulterant of bone meal, Rec. IX, 36.
 - barrens of Cape Cod, Massachusetts, reclamation, Rec. VII, 664.
 - briar, notes, Rec. III, 217, 893.
 - calcareous, effect on marsh soils, Rec. XII, 623.
 - cherry—
 - culture, Rec. III, 537.
 - for shade between forest trees, Rec. XI, 854.
 - stocks, Rec. II, 218; V, 982; VI, 982; VII, 582; VIII, 888; XI, 451.
 - improvement, Rec. IX, 841.
 - notes, Rec. III, 230, 522; VI, 421.
 - cultures—
 - apparatus and materials for, Rec. V, 755.
 - at Bernburg Station, Rec. V, 749.
 - dunes of Lake Michigan, ecology, Rec. XI, 321.
 - effect on moor soils, Rec. IX, 537.
 - filters for water filtration, Rec. VII, 23.
 - from gold fields, analyses, Rec. XI, 230.
 - grains, effect of diameter on flow of water, Rec. XI, 525.
 - grass—
 - analyses, Rec. VI, 403.
 - notes, Rec. XI, 423.

Sand—Continued.

- hills of Nebraska, reforestation, Rec. IX, 953.
- in feeding stuffs, flour, etc., recognition, Rec. V, 823.
- soils, determination, Rec. IV, 388.
- lyme grass, notes, Rec. IV, 951; VI, 415.
- plum, notes, Rec. XI, 498.
- sea, calcareous, analyses, Rec. XII, 626.
- vetch with rye for soiling, Rec. V, 256.
- vetch with winter wheat for soiling, Rec. V, 256.
- water-holding capacity, Rec. V, 759.

Sand bur. (See BUR GRASS.)

Sandalwood—

- cultivation in India, Rec. VII, 870.
- notes, Rec. XII, 562.

Sands—

- drifting—
 - plants for binding, Rec. XII, 319.
 - reclamation, Rec. XII, 319.
- of the desert of Lower Egypt, Rec. V, 346.
- shifting, control and fixation, Rec. XI, 435.

Sandspur grass, analyses, Rec. II, 491.

Sandstone, analyses, Bul. 2, II, 38; Rec. IX, 1024.

Sandy pine lands in Minnesota, management, Rec. XII, 757.

Sandy soils. (See SOILS, SANDY.)

Sanicula—

- gregaria*, notes, Rec. VII, 276.
- trifoliata*, notes, Rec. VII, 276.

Sanitary—

- climatology, Rec. VI, 620.
- convention, suggestions, Rec. IX, 194.
- laws of Massachusetts, new, Rec. V, 1041.
- regulations in Belgium, Rec. IX, 194.
- science, value, Rec. VIII, 929.
- significance of forests, Rec. V, 95.
- stations in the Italian Alps, Rec. IV, 240.

Sanitation—

- electrical, Rec. VI, 283.
- of farm buildings, Rec. IX, 393; X, 696.

Sannina— (See also PEACH-TREE BORER.)

exitiosa—

- as affected by irrigation, Rec. IV, 666.
- notes, Rec. II, 318, 659; III, 46, 175, 230, 298, 309, 313; VI, 235; VII, 792; VIII, 613, 907; IX, 371, 767; X, 269, 369, 656; XI, 173, 268.

opalescens, notes, Rec. IX, 767.

pacific—

- description and treatment, Rec. III, 889.
- notes, Rec. IX, 571.

Sansevieria—

- guineensis*, notes, Rec. V, 94.
- spp., notes, Rec. V, 92, 94; VII, 954.

Santonin as an insecticide, Rec. II, 319.

Sap—

- acidity of plants, Rec. XI, 1019.
- ascent, Rec. VII, 19, 656.
- chafer, brown, notes, Rec. VI, 740.
- flow—
 - and capillarity, Rec. IV, 871.
 - as related to lightning currents, Rec. V, 650; VII, 189.
 - related to tree growth, Rec. VIII, 315.
- studies, Rec. VI, 506.
- fly, notes, Rec. VI, 651.

Sap—Continued.

- in plants, movement, Rec. IX, 812.
- of trees, organisms in, Rec. VII, 928.
- pressure—
 - and flow in sugar maple, Rec. XI, 318.
 - as related to climate, Rec. XI, 118.

Saperda—

- bivittata*, notes, Rec. III, 175.
- calcarata*, notes, Rec. I, 12, 232.
- candida*. (See APPLE-TREE BORER, ROUND-HEADED.)
- concolor*, notes, Rec. I, 232; IV, 416.
- cretata*, notes, Bul. 2, I, 99; Rec. X, 655.
- tridentata*, notes, Rec. II, 669; V, 884; XII, 158.
- vestita*, notes, Rec. XII, 862.

Sapindus utilis, notes, Rec. VII, 656.

Sapodilla, notes, Rec. VI, 636.

Sapokarbol as an insecticide, Rec. XII, 578.

Saponaria—

officinalis—

- notes, Rec. V, 398, 399.
- root system, Rec. IV, 45.
- vaccaria*. (See COW COCKLE.)

Saponification—

- process in cheese, Rec. V, 1047.
- rapid method, Rec. V, 253.

Saponin—

- in corn cockle seed, Rec. IV, 387.
- occurrence and recognition, Rec. IV, 314.

Saprolegniaceæ—

- new species, notes, Rec. VII, 44.
- of the United States, Rec. V, 648.
- studies, Rec. VII, 94, 748, 925.

Saprophyte, new pigment-forming, Rec. IX, 923.

Saprophytes—

- effect on mouse-destroying bacteria, Rec. XI, 393.
- monocotyledonous, notes, Rec. VII, 466.

Saprophytism, symbiotic, Rec. X, 929.

Saratoga farm, location, Rec. V, 568.

Sarcinea disease, studies, Rec. VII, 312.

Sarcobatus—

- baileyi*, notes, Rec. VI, 114.
- vermiculatus*. (See GREASEWOOD.)

Sarcocystis falcata, notes, Rec. V, 514.

Sarcomacronychia trypanoxylonis, notes, Rec. V, 311, 312.

Sarcophaga, bibliography, Rec. XII, 867.

Sarcophaga—

carnaria. (See FLESH FLY.)

cimbicis—

- in the human ear, Rec. IV, 84.
- n. sp. on *Cimbex americana*, Rec. IV, 171.

opifera, Rec. IV, 372.

spp., parasitic habits, Rec. VI, 151.

Sarcophila, bibliography, Rec. XII, 867.

Sarcopsylla, bibliography, Rec. XII, 867.

Sarcopsylla—

- gallinacea*. (See HEN FLEA.)
- penetrans*. (See JIGGER FLEA.)

Sarcoptes—

mutans, notes, Rec. IX, 294.

scabiei—

- bibliography, Rec. XI, 764; XII, 867.
- ovis*. (See SHEEP, HEAD SCAB.)
- squamiferus*, remedies, Rec. XII, 793.

Sarcoptid inhabiting hair, Rec. VII, 594.

Sarcoptida, origin of parasitism, Rec. III, 547.

Sarcosporidia—
 in birds, Rec. V, 513.
 new American finds, Rec. VI, 933.

Sarcosporidiasis among buffalo, Rec. XI, 894.

Sassafras—
 bark and leaves, chemical composition, Rec. VIII, 105.
 chemistry, Rec. X, 1005.
 foliage, effect of arsenites, Rec. II, 199.

Satin grass, notes, Rec. X, 343.

Satol, analyses, Rec. X, 194.

Satureia hortensis, germination and growth in rarefied air, Rec. XII, 909.

Saturnia io, notes, Rec. III, 54.

Sauerkraut fermentation, chemistry, Rec. IX, 121.

Sausage—
 adulteration, Rec. XI, 21; XII, 676.
 analyses, Rec. IV, 59; X, 281; XI, 769.
 detection of coloring matter, Rec. IX, 420.
 determination of starch, Rec. IX, 1024.
 Frankfurter, analyses, Rec. IX, 872.
 manufacture and adulteration, Rec. XII, 676.
 starch content, Rec. VIII, 562.

"Sauva," remedies, Rec. IX, 465.

Saw tooth grain beetle, notes, Rec. X, 273.

Sawdust—
 analyses, Rec. II, 667.
 as a feeding stuff, Rec. V, 258, 733, 822, 916.
 detection in flour, Rec. XI, 905.
 for packing grapes, Rec. V, 909.
 germinating seeds in, Rec. VI, 223.
 pine, as a litter, Rec. V, 144.

Sawflies—
 classification, Rec. X, 374.
 injuring hollyhocks, Rec. VI, 739.
 larvæ, Rec. VII, 516; X, 374.
 notes, Rec. V, 101, 498; VI, 567; VIII, 146; X, 458; XI, 63, 265.
 remedies, Rec. XI, 62.
 revision of genera and species, Rec. VIII, 148.

Sawmill, ashes, analyses, Rec. VI, 274; XI, 831.

Saxifraga integrifolia sierræ, notes, Rec. VI, 114.

Saxifragaceæ, anatomy, Rec. IV, 692.

Scab of apples. (See APPLE SCAB.)

Scab of pears. (See PEAR SCAB.)

Scab of potatoes. (See POTATO SCAB.)

Scabies—
 depulming of poultry, notes, Rec. XII, 894.
 of poultry, treatment, Rec. XII, 1092.

Scabs, notes, Rec. IX, 254.

Scale—
 barnacle, in Louisiana, Rec. VI, 740.
 black—
 California, notes, Rec. VII, 411; VIII, 707.
 ladybirds for, Rec. III, 546; VII, 742.
 notes, Rec. IV, 203; V, 409, 514; VI, 313, 741, 742, 834; IX, 570; X, 569, 769; XI, 474; XII, 68, 644, 860, 862.
 parasites, Rec. III, 546.
 chilopsis, notes, Rec. IV, 418.
 convex, notes, Rec. IV, 203, 418; VI, 438.
 cottony cushion. (See SCALE, FLUTED.)
 cottony maple—
 natural enemies, Rec. XII, 160.
 notes, Rec. III, 176, 792; IV, 204; V, 884; VI, 562; VII, 696, 790; VIII, 146; IX, 158, 964, 1065; X, 164, 768, 1068; XI, 66, 958; XII, 160, 167, 272.

Scale—Continued.

cottony mesquite, notes, Rec. IV, 418.
 depressed, notes, Rec. VI, 742.

European fruit—
 description, Rec. XII, 870.
 notes, Rec. XI, 274, 657, 870, 953, 958; XII, 575.

flat, notes, Rec. III, 546; IV, 203; V, 409, 663; VI, 313, 438, 566, 834; VII, 696; VIII, 68; X, 569; XII, 68.

fluted—
 in Florida, Rec. VI, 440.
 New Zealand, Rec. V, 517.
 St. Helena, Rec. III, 813.

natural enemies, Rec. I, 301.
 notes, Rec. V, 409; VIII, 809, 1001; IX, 571; X, 374, 569, 571, 769, 1076; XI, 477, 959; XII, 1058.
 remedies, Rec. X, 1062.

Forbes—
 notes, Rec. VII, 881; VIII, 417; X, 66, 1059, 1060; XI, 272, 274, 958; XII, 469.
 on American fruit, Rec. XI, 655; XII, 971.
 remedies, Rec. XI, 654.

frosted, notes, Rec. III, 53; IV, 203; VII, 411.

gloomy, notes, Rec. X, 160.

Glover—
 introduction into California, Rec. IV, 852.
 notes, Rec. III, 889; V, 409; VI, 235, 742, 834; IX, 571; X, 160, 769; XII, 68.
 remedies, Rec. XI, 372.

greedy—
 larvæ, Rec. XI, 657.
 notes, Rec. IV, 203; VI, 235; VII, 514; IX, 663; X, 160, 569; XI, 958.
 on American fruit, Rec. XI, 655; XII, 971.

green, notes, Rec. VIII, 807; IX, 776; XI, 275, 871, 959.

hemispherical, Rec. IV, 203; VII, 696; IX, 858; XII, 68.

Howard, notes, Rec. VI, 653; VII, 143; VIII, 611; IX, 261.

imported, Rec. VIII, 418; IX, 69; X, 1058.

Indian white wax, Rec. X, 769.

insect—
 ivy, notes, Bul. 2, II, 58; VI, 440.
 useful, Rec. X, 62

insects—
 affecting American fruit, Rec. XI, 655; XII, 162.
 affecting coffee, remedies, Rec. XII, 369.
 affecting grasses, Rec. XII, 466.
 affecting oranges, remedies, Rec. XII, 372.
 affecting peaches, Rec. IV, 284.
 affecting tea, Rec. XI, 1062.
 American, as a menace to European fruit culture, Rec. X, 569.
 as affected by temperature, Rec. XI, 952.
 characteristics, Rec. IX, 670.
 classification and habits, Rec. IV, 418.
 collection and preservation, Rec. IX, 776.
 danger from, in packing material, Rec. XI, 655.
 fumigation, Rec. IV, 84; VI, 441.
 fumigator for, Rec. IV, 84.
 geographical distribution, Rec. VII, 518.
 hydrocyanic-acid gas for, Rec. III, 54, 183, 601; IV, 84.

Scale—Continued.

insects—continued.

in Arizona, Rec. VI, 1003.

California, Rec. IV, 203, 284; VI, 742; IX, 570.

California, quarantine against, Rec. IV, 284; VI, 741.

Delaware, Rec. VIII, 502.

Florida, Rec. XII, 68.

Hawaii, Rec. VIII, 911.

India, notes, Rec. XII, 369.

New Mexico, Rec. IV, 418.

the United States, Rec. VII, 518.

longevity after removing from fruit, Rec. XI, 655.

natural enemies, Rec. X, 768.

new species, Rec. IX, 369, 663, 1072.

notes, Rec. III, 53, 812; IV, 840; V, 103, 992; VII, 146, 696, 881; VIII, 146, 905; X, 160, 168, 975; XI, 760; XII, 580, 1058.

parasites, Rec. IV, 373; IX, 372; XII, 1058.

parasites, importation, Rec. IV, 284.

position on fruit, Rec. XI, 655.

remedies, Rec. III, 54, 183; IV, 203, 418; VII, 515; IX, 72, 470; XI, 372, 470, 657; XII, 68.

spraying experiments, Rec. XI, 274.

spread, Rec. VIII, 808.

larrea, notes, Rec. IV, 418.

lice—

effect on vegetable tissues, Rec. XII, 865.

in Germany, treatise, Rec. XII, 869.

locomotion of larvæ, Rec. XII, 869.

notes, Rec. XI, 264.

long. (See SCALE, GLOVER.)

new—

in Florida, Rec. V, 514.

species, Rec. VIII, 69, 417.

of citrus fruits, Rec. VIII, 321.

purple—

notes, Rec. V, 409; VI, 235, 742; IX, 571; X, 160, 569, 769; XII, 68.

remedies, Rec. III, 889.

Putnam—

notes, Rec. VIII, 146; IX, 261, 663; X, 268, 766, 1060; XI, 274, 657, 958; XII, 469.

on American fruit, Rec. XI, 655; XII, 971.

remedies, Rec. IX, 261; XI, 958.

v. San José scale, Rec. X, 766.

red—

California, notes, Rec. III, 54; VI, 438; VII, 411; X, 160.

California, parasites, Rec. V, 900.

Florida, Rec. V, 409; VI, 235, 740, 834, 1003; VII, 881; VIII, 507; X, 160; XI, 372, 958.

notes, Rec. II, 80; IV, 203; V, 409; VI, 834; IX, 570, 663; X, 62, 569, 769.

parasite, new species, Rec. IV, 699.

rufous, notes, Rec. IV, 284.

San José. (See SAN JOSÉ SCALE.)

scurfy—

notes, Rec. II, 169; IV, 839; V, 498; VI, 562; VII, 514, 696, 790; VIII, 418, 906; IX, 662, 663; X, 160, 766, 768; XI, 66, 170, 270, 657, 762, 952, 958; XII, 369, 468, 469, 869, 1058.

on American fruit, Rec. XI, 655; XII, 971.

remedies, Rec. XI, 958.

Scale—Continued.

white—

notes, Rec. III, 91, 889; VI, 834; VII, 316, 790; IX, 571.

round, notes, Rec. VI, 235.

Scales—

for heavy weighing, Rec. VIII, 350.

stock, Rec. VIII, 352.

Scalops— (See also MOLES.)

aquaticus, notes, Rec. X, 25, 323.

breweri, notes, Rec. X, 323.

Scaly—

club rush, analyses, Rec. IV, 769, 770.

leg of poultry, notes, Rec. XII, 894.

Scandinavia—

agricultural associations in, Rec. X, 198.

agricultural chemical work in, Rec. X, 21.

Scapanus americanus, notes, Rec. X, 25.

Scaphoideus—

lobatus, n. sp., notes, Rec. VI, 564.

luteolus, n. sp., notes, Rec. VI, 564.

Scarabeid—

beetle injuring sugar cane, Rec. VII, 698.

larvæ, anatomy, Rec. VII, 699.

Scarabids, notes, Rec. X, 872.

Scarlet—

fever in animals, Rec. X, 192.

runners, fertilizer experiments, Rec. VII, 307.

Sceltoporus—

boulengeri, n. sp., notes, Rec. V, 90.

orcutti, n. sp., notes, Rec. V, 90.

Scenopinus fenestralis, notes, Rec. V, 310.

Schodonardus—

paniculatus, notes, Rec. VI, 403.

tezanus, notes, Rec. II, 321; III, 549.

Schedonorus hookerianus, notes, Rec. VII, 955.

Schinia—

intrabilis, notes, Rec. V, 328.

ligex, notes, Rec. V, 328.

Schist for phylloxera, Rec. V, 822; VI, 742; VII, 700.

Schistocerca— (See also LOCUSTS.)

americana, notes, Rec. III, 55; IV, 760; V, 1079; VI, 739; VIII, 1002; IX, 370; XI, 954.

paranensis, natural enemies, Rec. XI, 1066.

Schistocerca, characters, Rec. XI, 66.

Schistochila quadridata, n. sp., notes, Rec. IV, 374.

Schizocarpus mingandi, notes, Rec. VII, 594.

Schizocerus—

ebenus, notes, Rec. XI, 62.

privatus, notes, Rec. IV, 372.

zabriskei, notes, Rec. XI, 871.

Schizocystis gregarinoides, n. sp., notes, Rec. XII, 870.

Schizomycetes, new generic type, Rec. X, 121, 156.

Schizoneura—

americana, notes, Rec. II, 669; IX, 1065; X, 65.

corni, notes, Rec. II, 80; V, 980.

fodiens, notes, Rec. IX, 965.

lanigera. (See APHIS, WOOLLY.)

peregrina, notes, Rec. VI, 443.

pinicola, notes, Rec. VI, 730; XI, 762.

rileyi, notes, Rec. XII, 580.

sp., notes, Rec. XI, 657.

ulmi, notes, Rec. IX, 965.

Schizophyllum lobatum, formation of carbon bisulphid by, Rec. VIII, 290.

Schizo-saccharomyces octosporus, enzym of, Rec. VII, 95.

Schizura—

- ipomeæ*, notes, Rec. IV, 838.
- unicornis*, notes, Rec. IV, 838.

Schone's elutriation apparatus for soil, Rec. V, 924.

School—

- books, errors in, Rec. XII, 118.
- boys, diet for, Rec. VIII, 330.
- gardens, Rec. XII, 451, 452.
- grounds—
 - horticultural decoration, Rec. XI, 50.
 - management and improvement, Rec. XII, 649.
- herbariums, Rec. XII, 452.
- National Horticultural, at Versailles, Rec. VI, 222.
- of Applied Agriculture and Horticulture, Rec. XI, 900.
- forestry, France, Rec. IV, 783.
- window gardening, Rec. XII, 452.

Schools—

- agricultural—
 - in Denmark, Rec. IX, 298, 398; X, 98.
 - traveling, in Germany, Rec. IX, 899.
- dairying. (See DAIRY SCHOOLS.)
- forestry. (See FORESTRY SCHOOLS.)
- lectures in, Rec. XII, 119.
- of chemistry in Great Britain, Rec. VII, 271.
- grafting in Haute-Savoie, Rec. VII, 165.
- horticulture, Rec. IV, 330; VI, 222; VII, 506; IX, 651; XI, 900.
- public, meteorology in, Rec. IX, 30.
- rural, Rec. XII, 698.

Schumaker's stock food, analyses, Rec. XII, 169.

Sciadopytis verticillata, notes, Rec. V, 54.

Sciapteron—

- dolii carlota*, notes, Rec. IX, 1070.
- tricincta*, notes, Rec. IV, 666.

Sciara—

- sp., as a cause of potato scab, Rec. VIII, 320.
- vulgaris*, notes, Rec. X, 169.

Science—

- agricultural, in Russia, Rec. IX, 204.
- practical, in Germany, Rec. IX, 531.
- relation to agriculture, Rec. VIII, 268.
- v. art, Rec. IX, 317.

Scientific—

- aids in the U. S. Department of Agriculture, Rec. XI, 1, 430.
- assistants, notes, Rec. XI, 819.

Scion—

- and stock, reciprocal effect, Rec. X, 552, 637, 640; XI, 250, 345, 850.
- as affected by stock, Rec. IX, 136.
- modification, caused by grafting, Rec. XI, 344.

Scirpophaga intacta—

- notes, Rec. III, 278; VIII, 320; X, 570.
- parasites, Rec. XII, 469.

Scirpus—

- atrovirens*, notes, Rec. VI, 404.
- cæspitosus*—
 - analyses, Rec. IV, 769, 770.
 - notes, Rec. IV, 772.
- fluriatilis*, notes, Rec. VI, 404.
- hallii*, notes, Rec. VI, 404.
- maritimus*, notes, Rec. II, 486; VI, 404.

Scirpus—Continued.

- olneyi*, notes, Rec. II, 487.
- pungens*, notes, Rec. II, 487; VI, 404.
- Scitamineæ, development of seed, Rec. VII, 748.
- Sciruidæ in Idaho, Rec. III, 184.
- Scleria* spp., notes, Rec. IX, 812.
- Scleroderma vulgare*, notes, Rec. X, 551.
- Scleropogon karwinskianus*, notes, Rec. III, 549.
- Sclerospora*—
 - graminicola*—
 - affecting millet and foxtail grass, Rec. XI, 58.
 - notes, Rec. IV, 50; V, 399.
 - kriegeriana*, notes, Rec. VII, 513.

Scleropteridius—

- austricus*, notes, Rec. IX, 74.
- fallax*, notes, Rec. IX, 74.
- monticola*, notes, Rec. IX, 74.

Sclerostomum—

- hypostomum*, notes, Rec. II, 79.
- pinguicola* in the kidney of pigs, Rec. VI, 335.

Sclerotia of *Lentinus wærmanni*, notes, Rec. VII, 466.

Sclerotinia and Botrytis, studies, Rec. XII, 164.

Sclerotinia—

- alni* in Alnus fruits, Rec. VI, 233.
- aucupariæ*, notes, Rec. V, 530; VII, 311.
- bulborum*, notes, Rec. VI, 234.
- dubia*, notes, Rec. VII, 748.

fuckeliana—

- notes, Rec. V, 529; XII, 354.
- on conifers, Rec. XII, 656.

galanthi, notes, Rec. IX, 457.

heteroica—

- notes, Rec. VI, 311.
- study, Rec. VIII, 749.

libertiana—

- causing mulberry disease, Rec. IX, 362.
- notes, Rec. V, 192.
- treatment, Rec. XII, 856.

padi, notes, Rec. V, 530; VII, 311.

pæonia, notes, Rec. XI, 167.

sclerotiorum, notes, Rec. XII, 911.

trifoliorum, notes, Rec. VI, 828; X, 446, 652.

trifolium—

- notes, Rec. III, 689.
- on clover, Rec. IX, 957.

Sclerotium—

- disease of Alnus fruits, Rec. IX, 852.
- wilt, treatment, Rec. XII, 552.

Sclerotium sp., notes, Rec. X, 57.

Scolecophagus—

- carolinus*, notes, Bul. 2, II, 93.
- cyancephalus*, notes, Bul. 2, II, 93.

Scoletotrichum—

- caricæ*, notes, Rec. III, 810.
- maculicola*, notes, Rec. IV, 50.
- melophthorum* on fruits and melons, Rec. X, 155.
- punctulatum*, n. sp., Rec. VI, 1000.

Scolochloa arundinacea, notes, Rec. VI, 404.

Scolopendra—

- cingulata*, poison apparatus, Rec. VI, 236.
- heros*, notes, Rec. XII, 974.

Scolopendrella immaculata, notes, Rec. VIII, 998.

Scolymus hispanicus, notes, Rec. III, 618.

- Scolytid—
 bark beetle, notes, Rec. IX, 669.
 beetles—
 attacking plum trees, Rec. XI, 871.
 notes, Rec. IX, 670; X, 1067.
 synonymy, Rec. VIII, 1002.
 borers—
 description and treatment, Rec. III, 889.
 notes, Rec. VIII, 68.
 Scolytidæ—
 and their food plants, Rec. V, 901.
 destructive, natural enemy, Rec. V, 516.
 of West Virginia—
 natural enemies, Rec. V, 311.
 notes, Rec. V, 311; VI, 654.
 parasites, Rec. III, 47.
 Scolytids destroying forests, Rec. VIII, 415.
 Scolytus—
 aceris, n. sp., notes, Rec. X, 168.
 destructor, notes, Rec. IX, 470.
 intricatus, notes, Rec. VIII, 807; IX, 471.
 lævis, notes, Rec. X, 168.
 multistriatus, notes, Rec. IX, 471.
 muticus, notes, Rec. VII, 699.
 præceps, notes, Rec. XII, 64.
 pruni, notes, Rec. VIII, 809.
 rugulosus, notes, Bul. 2, I, 178; Rec. II, 632; III, 657; V, 311; VI, 313, 546, 1003; VII, 230, 697, 699; VIII, 321, 418, 505, 507, 809; IX, 371, 463, 574, 662, 962, 964; X, 165; XI, 173, 264, 268, 272, 366, 952, 954; XII, 664.
 (See also FRUIT-TREE BARK BEETLE.)
 l-spinosus, notes, Rec. VII, 595, 699; VIII, 904; IX, 67, 663, 964; XI, 764.
Scopelosoma sidus, notes, Rec. IV, 830.
 Scorpions, venom, Rec. VI, 740.
 Scorzonera— (See also SALSIFY.)
 salsify grafted on, Rec. V, 1089.
 varieties, Rec. VII, 405.
 Scotch broom, notes, Rec. VII, 134.
Scotogramma densa, notes, Rec. V, 328.
 Scouleria, revision, Rec. VI, 487.
 Scour of calves, Rec. XII, 686.
 Screech owl, notes, Rec. VI, 695.
 Screenings—
 analyses, Rec. IX, 935; X, 426.
 for lambs, Rec. V, 1084.
 Screw worm—
 fly, notes, Rec. VI, 235; XI, 272.
 hominivorous habits, Rec. III, 548, 812.
 injury to animals from, Rec. II, 275, 299.
 means of repression, Rec. II, 276.
 notes, Bul. 2, I, 189; Rec. II, 275, 299, 659; IV, 75; VI, 235.
 parasite, Rec. IV, 852.
Scrophularia—
 californicus, notes, Rec. III, 598.
 nodosa, notes, Rec. VII, 530.
Scudderia furculata on cranberry bogs, Rec. IV, 565.
 Scutch grass, notes, Rec. X, 432.
Scutellista cyanea—
 establishment in California, Rec. XII, 860.
 notes, Rec. X, 1058.
Scutigera forceps, notes, Rec. IX, 63.
Scymnus—
 lophanthæ in California, Rec. IV, 667.
 spp., collection in Australia and New Zealand, Rec. III, 546.
 Sea—
 air, chlorin content, Rec. X, 1030.
 club rush—
 analyses, Rec. II, 486; VI, 404.
 notes, Rec. II, 486.
 grass, analyses, Rec. II, 504; V, 64.
 kale—
 culture, Rec. VIII, 407; IX, 357.
 varieties, Rec. IV, 650.
 level, effect on soil temperature, Rec. IV, 614.
 lymé grass, notes, Rec. XI, 423.
 mud, effect on root tubercles of leguminous plants, Rec. VII, 188.
 pumpkin, analyses, Rec. VIII, 966; IX, 636.
 water—
 analyses, Rec. XI, 314.
 and aluminum sulphate, antiseptic value, Rec. XII, 991.
 composition, Rec. IV, 315.
 poisonous effect on plants, Rec. XI, 24.
 Seaboard Air Line Railroad, industrial work, Rec. VIII, 1035.
 Seacoast and telegraph lines of United States, instructions to operators, Rec. IX, 817.
 Search light—
 for weather signals, Rec. X, 124.
 use in meteorology, Rec. IX, 424.
 Seaside weevil, remedies, Rec. VIII, 612.
 Season—
 effect on color of grain, Rec. VIII, 307.
 effect on migration, Rec. IX, 423.
 Seasonal dimorphism, Rec. VII, 278.
 Seasons—
 and successive years, character, Rec. IX, 1034.
 depicting character diagrammatically, Rec. XII, 317.
 periodicity, Rec. VI, 698; VIII, 474, 675.
 Seaweed—
 agricultural value, Rec. IV, 715.
 analyses, Rec. II, 101; III, 9, 162; IV, 715; VI, 287, 630; VII, 573; X, 833; XI, 229; XII, 39.
 as a fertilizer, Rec. IV, 715; XI, 527; XII, 225.
 as a fertilizer for—
 corn, Rec. III, 529.
 fruit trees, Rec. XII, 54.
 oats, Rec. V, 779.
 potatoes, Rec. VIII, 596.
 as a mulch for orchard fruits, Rec. XI, 548.
 ash constituents, Rec. III, 373.
 edible, Rec. V, 822.
 food value, Rec. IV, 715.
 for potatoes, Rec. VIII, 596.
 value and uses, Rec. XI, 599.
 v. barnyard manure, Rec. X, 934.
 Seawood, ash analyses, Rec. XII, 39.
Secale africanum, n. sp., notes, Rec. XI, 319.
Secchium edule, notes, Rec. V, 189; VI, 819; XII, 245, 853.
 Secreting organs of fungi, studies, Rec. VII, 466.
 Secretion of potash by *Dicranura*, Rec. VII, 517.
 Secretions—
 and their formation, Rec. VI, 506.
 internal, physiology of, Rec. IX, 392.

Sedge—

- analyses, Rec. V, 64.
- and rush, fertilizing ingredients, Rec. V, 391.
- bog—
 - analyses, Rec. IV, 769, 770.
 - notes, Rec. IV, 772.
 - smaller, analyses, Rec. IV, 769, 770.
 - smaller, notes, Rec. IV, 772.
- broom—
 - analyses, Bul. 2, I, 108; III, 40, 629; V, 64.
 - notes, Rec. III, 893; V, 663.
- chestnut-colored, analyses, Rec. VI, 404.
- dwarf, Rec. VI, 400.
- giant, analyses, Rec. VI, 404.
- grass, analyses, Rec. VI, 1008.
- horned, analyses, Rec. V, 64.
- seed, analyses, Rec. VI, 752.
- slender-leaved—
 - analyses, Rec. IV, 769, 770.
 - notes, Rec. IV, 772.

Sedges—

- analyses, Rec. VI, 404.
- notes, Rec. X, 343.
- value for forage in Sweden, Rec. IV, 772.

Sediment trap, Rec. XI, 214.

Sedum telephium, root system, Rec. IV, 46.

Sedums—

- fungus diseases, Rec. VI, 825.
- ornamental, disease, Rec. V, 400.

Seed—

- absorbent power as related to weight, Rec. V, 257, 336.
- absorption—
 - and rejection of water, Rec. VIII, 743.
 - of water from salt solutions, Rec. XI, 1053.
- adulteration, Rec. II, 601; IV, 615; IX, 199.
- agricultural value, Rec. IX, 957.
- alkaloids, Rec. VI, 195.
- amount required for sowing, Rec. IX, 453.
- analyses, Rec. V, 64, 727; X, 259.
- and fodder, culture experiments, Rec. V, 657.
- plant distribution of California, Rec. XI, 1047.
- and plants—
 - chlorophyll grains in, Rec. VI, 195.
 - distribution, Rec. IV, 557; V, 683; VI, 822; VII, 766; VIII, 782; XII, 954.
 - foreign inventory, Rec. XI, 1015; XII, 911.
 - from Eastern Europe and North Central Asia, Rec. VIII, 1035.
- apparatus for photographing, Rec. VI, 431.
- Association, Swedish, report, Rec. V, 821.
- beds—
 - preparation, Rec. XI, 642.
 - preparation on light soils, Rec. IX, 445.
- breeding, Rec. XI, 498.
- breeding—
 - adherence to type, Rec. X, 353, 418.
 - studies, Rec. X, 259.
- buoyancy, Rec. VII, 218.
- change of, Rec. IX, 453.
- chemical processes in germination, Rec. XI, 55.
- chlorophyll in, Rec. VII, 468.

Seed—Continued.

coats—

- of Brassica and Sinapis, Rec. VI, 196; VIII, 703.
- Euphorbias, structure, Rec. VIII, 989.
- red clover seed, perforation, Rec. VII, 872.
- Solanacæ, Rec. VIII, 670.
- Umbelliferæ, calcium oxalate in, Rec. VII, 94.
- origin and structure, Rec. V, 257.
- collection, Rec. V, 667.
- company, Danish, report, Rec. IX, 454; X, 259.
- composition of proteids, Rec. X, 607.
- conditions of germination, Rec. XI, 1055.
- control, Rec. V, 364; VII, 510; IX, 957; X, 259.
- control—
 - catechism, Rec. XI, 56.
 - in Germany, Rec. IV, 982; VI, 10.
 - Sweden, Rec. IX, 1044, 1099.
 - its aims, methods, and benefits, Rec. VIII, 410.
 - Norwegian, report, Rec. XI, 56.
- control station—
 - at Bohus, Sweden, report, Rec. XI, 1055.
 - Christiania, Norway, report, Rec. VI, 550; IX, 1055.
 - Copenhagen, Denmark, report, Rec. V, 438; IX, 55, 454; X, 53; XI, 55; XII, 251, 252.
 - Göteborg, Sweden, report, Rec. IX, 454, 1055; XI, 55, 354, 460, 1055; XII, 252.
 - Gratz, Austria, report, Rec. VI, 428; VII, 871; XI, 157.
 - Halmstad, Sweden, report, Rec. VII, 218, 779.
 - Hamburg, Germany, report, Rec. VII, 778; VIII, 409; IX, 955.
 - Hernösand, Sweden, Rec. V, 438; VII, 690.
 - Hohenheim, Germany, report, Rec. VII, 872; XI, 1055.
 - Jönköping, Sweden, report, Rec. VII, 218.
 - Köslin, Germany, report, Rec. XI, 55.
 - Kristianstad, Sweden, report, Rec. VIII, 58.
 - Lund, Sweden, report, Rec. VII, 690; X, 259, 554; XI, 460; XII, 252.
 - Molkom, Sweden, Rec. VII, 690.
 - Oerebro, Sweden, reports, Rec. VI, 224; VIII, 117, 153, 173; X, 554; XII, 252.
 - Ope, Sweden, report, Rec. VII, 690.
 - Skara, Sweden, report, Rec. VII, 690; VIII, 1034; X, 414; XI, 56, 460; XII, 252.
 - St. Petersburg, Russia, report, Rec. XI, 159.
 - Stockholm, Sweden, report, Rec. VII, 218, 690; X, 554; XI, 156, 750; XII, 252.
 - Vienna, Austria, regulations and standards, Rec. XII, 350.
 - Vienna, Austria, report, Rec. IV, 618; V, 122; VII, 872; VIII, 891; XII, 350.

Seed—Continued.

- control station—continued.
 - at Zürich, Switzerland, reports, **Rec. V**, 121, 821, 910; **VII**, 510; **IX**, 454; **XI**, 155; **XII**, 456.
 - of France, **Rec. V**, 129.
- control stations—
 - equipment, **Rec. IV**, 894.
 - of Scandinavia, **Rec. X**, 4.
 - Sweden, reports, **Rec. VII**, 698; **IX**, 454; **X**, 554; **XII**, 252.
- cooperation in purchase, **Rec. V**, 549.
- corrosive sublimate for prevention of mold, **Rec. II**, 650.
- dealers, rules for, **Rec. XII**, 350.
- depth of planting, **Rec. IX**, 645.
- development—
 - effect on fruit development, **Rec. XI**, 932.
 - in Scitamineæ, **Rec. VII**, 748.
 - researches, **Rec. IV**, 692.
- dispersal, **Rec. X**, 361, 553, 1049.
- dispersal—
 - by birds, **Rec. VII**, 689.
 - methods, **Rec. XI**, 425.
- dissemination, **Rec. VII**, 510.
- dissemination as affected by length of peduncle, **Rec. VIII**, 471.
- dissolution of cell membranes during germination, **Rec. VI**, 301; **VII**, 18.
- distribution, **Rec. II**, 4, 392; **III**, 356, 444, 595; **IV**, 436; **V**, 590; **IX**, 944; **X**, 253, 963; **XII**, 1014.
- distribution—
 - in Alabama, **Rec. IV**, 697.
 - of plant diseases by, **Rec. IV**, 985.
- dry—
 - and musty for planting, **Rec. VII**, 407.
 - or moist, as affected by anesthetics, **Rec. XI**, 1056.
- drying, **Rec. V**, 728.
- effect of—
 - cold, **Rec. VIII**, 986.
 - mutilating on development of plants, **Rec. X**, 517.
 - size and weight on growth, **Rec. VI**, 487.
 - size on crop, **Rec. XII**, 441.
 - size on production, **Rec. X**, 264.
 - temperature on, **Rec. XI**, 54, 855.
 - weight on yield of cereals, **Rec. X**, 967.
- evergreen, planting, **Rec. III**, 229.
- examination, **Rec. V**, 364, 683, 775, 910; **VII**, 587; **VIII**, 57, 233, 748.
- examination—
 - for planters, **Rec. I**, 136.
 - in Holland, **Rec. V**, 670.
- exchange—
 - effect on culture of wheat, **Rec. VII**, 30.
 - list, **Rec. X**, 361; **XII**, 1014.
- exotic, for temperate Europe, **Rec. IX**, 453.
- farms of the United States, statistics, **Rec. III**, 202.
- fat compounds in, **Rec. V**, 338.
- field selection, **Rec. X**, 698.
- forest, investigations, **Rec. VIII**, 410.
- garden, tests, **Rec. VIII**, 233.
- germination. (*See* GERMINATION.)
- grain—
 - and methods of cultivation, **Rec. X**, 97.
 - germination tests, **Rec. III**, 356.

Seed—Continued.

- greenhouse tests, **Rec. II**, 632.
- growing in Germany, **Rec. VI**, 728.
- grown on medium fertile *v.* rich soils, **Rec. II**, 28.
- growth as affected by electric current, **Rec. IV**, 315.
- hard—
 - germination, **Rec. X**, 54.
 - machine for treating, **Rec. VII**, 510.
 - harvesting and storing, **Rec. IX**, 453.
 - heat of imbibition in germination, **Rec. X**, 358.
 - heavy *v.* light, **Rec. IX**, 563.
 - huller for crimson clover, **Rec. V**, 796.
 - hydrometric condition, **Rec. XI**, 1056.
- immature—
 - deviations arising from use of, **Rec. VI**, 378; **VII**, 271, 588.
 - effect on quality of fruit, **Rec. VI**, 816.
- imported by the Section of Seed and Plant Introduction, **Rec. XI**, 319.
- impurities, **Rec. V**, 121, 123.
- industry of England, history, **Rec. XI**, 153.
- influence of age on germination, **Rec. V**, 347, 1030; **VI**, 427, 638; **VII**, 777, 871; **XI**, 157.
- investigation—
 - in Bohemia, **Rec. XI**, 56.
 - methods, **Rec. XII**, 350.
- law—
 - regarding in North Carolina, **Rec. III**, 580.
 - regulating sale, **Rec. IX**, 899.
- lecithin content, **Rec. VI**, 965; **IX**, 1020.
- list, **Rec. XII**, 760.
- localization of oils—
 - in germination, **Rec. IV**, 613.
 - during formation, **Rec. V**, 1097.
- longevity, **Rec. IX**, 653.
- loss in weight, **Rec. IX**, 454.
- maturity, **Rec. X**, 555.
- methods of analysis, **Rec. VI**, 107.
- molecular weight of soluble matter, **Rec. IX**, 758.
- occurrence of—
 - cane sugar in, **Rec. XI**, 710.
 - histidin and lycin in, **Rec. XI**, 1056.
- of cereals—
 - germination as affected by artificial drying, **Rec. X**, 259.
 - selection, **Rec. V**, 226; **IX**, 638.
 - treatment for fungi, **Rec. V**, 653.
- of Cruciferae, **Rec. IX**, 1055.
- grain, destruction of insects in, **Rec. IX**, 453.
- Moabi, **Rec. VI**, 822.
- oaks and pines, destruction by *Gastropacha quercus*, **Rec. X**, 856.
- Pinus cembra*, analysis, **Rec. X**, 1077.
- the Coula of the French Congo, **Rec. VI**, 822.
- oil-bearing—
 - mill for preparing for fat determination, **Rec. V**, 1027.
 - treatise, **Rec. XI**, 482.
- oil-producing, **Rec. VIII**, 795.
- oily, germination, **Rec. VI**, 431; **VII**, 510; **XI**, 55.
- old, effect of ferments on germination, **Rec. XI**, 460.

Seed—Continued.

- packing and shipping, Rec. IX, 454; XII, 345.
- phosphatic substance, Rec. VII, 926.
- plants, and cuttings, distribution, Rec. VIII, 689.
- poisonous leguminous, in Indian peas, Rec. V, 1101.
- preservation, Rec. XII, 54.
- preservation in the soil, Rec. IX, 653.
- prevention of—
 - fraud, Rec. VII, 407.
 - mold, Rec. II, 65.
- production—
 - and saving, Rec. IX, 564.
 - of the beech, effect on ash constituents and nitrogen, Rec. V, 256.
 - premature, Rec. XI, 232.
- productiveness as affected by size and weight, Rec. VII, 510, 680.
- protein substances, Rec. XII, 1049.
- pure—
 - investigations, Rec. VII, 510.
 - value and production, Rec. VII, 407.
- raising, studies, Rec. VIII, 410.
- ratio of perfect to abortive forms, Rec. XI, 818.
- refrigerated, vitality, Rec. IX, 653.
- reserve material, Rec. V, 649; VIII, 989.
- reserve material, change in germination, Rec. V, 257, 728; VI, 873.
- reserve materials, utilization, Rec. XI, 221; XII, 313.
- resistance to—
 - heat, Rec. XI, 855; XII, 251.
 - mercury, Rec. XII, 350.
- ripening, Rec. X, 760.
- sampling, Rec. V, 66; VIII, 704.
- sampling apparatus, Rec. XII, 961.
- saving and care, Rec. VI, 301.
- sectioning, Rec. X, 418.
- selection, Rec. IX, 453; XI, 462; XII, 349, 640.
- selection—
 - by specific weight, Rec. X, 197, 555.
 - of potatoes, Rec. X, 1039.
 - salt-water method, Rec. X, 1047.
- selling, growing, and testing, Rec. XII, 458.
- sold in the markets of England, quality, Rec. VII, 778.
- sorting apparatus, Rec. XII, 760.
- sprouting, morphology of cell nucleus, Rec. V, 254.
- stations of the world, Rec. VI, 945.
- sterilizing and planting in sand cultures, Rec. V, 840.
- stratified, shed for, Rec. V, 875.
- swollen, free water in, Rec. V, 1027.
- testing, Rec. VIII, 704; IX, 143, 453, 653, 956, 1055; X, 54, 259, 555; XI, 462, 1055; XII, 251, 565, 911.
- testing—
 - apparatus, description, Rec. IV, 915; XI, 156, 750.
 - at Hohenheim, report, Rec. III, 656.
 - home Rec. VIII, 795.
 - Köslin, Germany, report, Rec. XII, 1051.
 - Modena, Italy, report, Rec. XI, 56, 750; XII, 960.

Seed—Continued.

- testing—continued.
 - in Germany, Rec. IV, 792, 793, 882, 982; XI, 462; XII, 458.
 - Holland, Rec. XI, 56.
 - New Zealand, Rec. XII, 960.
 - methods, Rec. VIII, 795, 891; XI, 56.
 - regulations, Rec. X, 1046.
 - value, Rec. II, 267.
- tests, Bul. 2, I, 179; Rec. I, 23, 76, 137; II, 3, 28, 62, 129, 317, 322, 325, 448, 492, 632, 650, 668; III, 143, 217, 356, 395, 461; VIII, 58, 891, 987, 989.
- tests—
 - American, summary, Rec. V, 1037.
 - cooperative, Rec. VII, 682.
- that germinates with difficulty, machine for preparing, Rec. VI, 57.
- treatment, Rec. IX, 564; XI, 274.
- variation as influenced by climate and soil, Rec. VIII, 288.
- viability, Rec. X, 555; XI, 157.
- vitality, Rec. V, 1030; VI, 822; VII, 37, 38, 406, 407, 510, 587, 777, 879; VIII, 892; IX, 453, 454, 846; XII, 350.
- vitality and dissemination, Rec. IX, 758.
- vitality as affected by—
 - burying in the soil, Rec. VII, 872.
 - carbon bisulphid, Rec. IX, 652.
 - water, Rec. X, 759.
 - weight, Rec. VII, 510.
- vitality tests, Bul. 2, I, 179; Rec. I, 22, 76, 137, 286; VI, 430; VII, 587, 871; IX, 54, 454; X, 258; XII, 898.
- water content as affecting germination and keeping qualities, Rec. IV, 694.
- yield as affected by quality, Rec. VI, 419.
- Seeding. (*See specific crops.*)
- Seeding grass lands, Rec. X, 348, 397, 432.
- Seedlings. (*See different fruits.*)
- Seedlings, damping off, Rec. VIII, 899.
- Seeds. (*See specific crops.*)
- Seepage—
 - studies, Rec. XI, 394; XII, 294.
- water—
 - and underflow of rivers, Rec. VII, 163.
 - escaping into larger channels, Rec. XI, 517.
 - from canals, Rec. X, 795.
 - irrigation, Rec. VII, 898.
 - in northern Utah, Rec. IX, 798.
 - rate of flow, Rec. II, 395.
 - return of, Rec. IV, 368.
- Seiches and microbes, Rec. X, 1018; XI, 222.
- Seira domestica*, infesting man, Rec. VIII, 69.
- Seismic—
 - and oceanic noises, Rec. X, 325, 1018.
 - changes caused by building operations, Rec. XII, 25.
 - noises in North Carolina and Georgia, Rec. IX, 531.
- Seismograph—
 - at Carson City, Rec. XII, 521.
 - Marvin, Rec. VII, 474.
 - records, Rec. XI, 430.
 - stations in the United States, Rec. XI, 620.
- Seismographs at meteorological stations, Rec. IX, 424.

Selandria—

- atra*, notes, Rec. XII, 1061.
- caryæ*, notes, Rec. X, 458.
- cerasi*. (See PEAR SLUG.)
- rosæ*, notes, Rec. III, 792.
- rubi*. (See RASPBERRY SAWFLY.)
- sp., notes, Rec. II, 81.
- vitis*. (See GRAPEVINE SAWFLY.)

Selection—

- effect on cultivated plants, Rec. XI, 3.
- in its relation to horticulture, Rec. X, 153, 354.
- plant improvement, Rec. XI, 423.

Selenipedium lindleyanum, hybrids derived from, Rec. XI, 549.

Selenium for measuring sunshine, Rec. XI, 222.

Self-binders, tests, Rec. IX, 1097.

Selidosema—

- configurata*, notes, Rec. X, 372.
- lachrymosa*, notes, Rec. X, 372.

Semaquir, notes, Rec. X, 124.

Semasia—

- bucephaloides*, n. sp., notes, Rec. III, 183.
- nigricana*, notes, Rec. X, 866; XI, 471, 558, 863.
- spp., notes, Rec. VII, 593; IX, 855.

Semicolon butterfly, Rec. IX, 668.

Semiottellus—

- destructor* parasitic on Hessian fly, Rec. IX, 663.
- nigripes* as a parasite for the Hessian fly, Rec. III, 547.

Semolina, analyses, Rec. IX, 1078.

Senecio—

- præcox*, water storage and conduction, Rec. XI, 818.
- vulgaris*, notes, Rec. III, 598, 599; VII, 511.

Senecios, active principles, Rec. VII, 468.

Senses of insects, Rec. VII, 231.

Sensibility in plants, Rec. VIII, 290.

Separator—

- and butter extractor, new, Rec. VII, 717.
- Berrigan, tests, Rec. IV, 362, 363.
- cream, determination of fat in, Rec. IX, 285.
- De Laval, tests, Rec. IV, 267, 363, 364, 751.
- for private dairies, Rec. V, 82.
- Radiateur, tests, Rec. VII, 529.
- radiator, and churn, Rec. IX, 796.
- sediment, germs in, Rec. V, 1049.
- slime—
 - disposition, Rec. IX, 590.
 - investigations, Rec. X, 186.
 - relation to tuberculosis in hogs, Rec. VIII, 334.
 - source, Rec. XII, 883.

Separators—

- care, Rec. IX, 1088.
- centrifugal, Rec. V, 260.
- description, Rec. IV, 188, 189, 364, 761; V, 82; VIII, 835.
- dilution, tests, Rec. XII, 386.
- efficiency, Rec. IV, 988.
- for removing bacteria from milk, Rec. VIII, 831.
- hand, Rec. V, 796, 1085.
- tests, Rec. III, 652, 891; IV, 188, 195, 273, 363, 364, 616, 751; V, 322, 928, 1055, 1056; VI, 169, 245, 338, 344, 477, 847, 940; VII, 426, 630, 992; VIII, 87, 170, 347, 732, 834, 1027; IX, 386, 494, 888; X, 591, 593; XI, 186, 490.
- use of patented, Rec. XI, 389.

Septa rubifolia, notes, Rec. IV, 820.

Sepiolite, analyses, Rec. X, 229.

Sepsis, bacteriological examination of blood in, Rec. V, 927.

Septicæmia—

hemorrhagic, in—

- ducks and chickens, Rec. XII, 294, 888.
- poultry, Rec. XII, 888.
- poultry, susceptibility of different animals, Rec. XII, 990.
- in animals, notes, Rec. XII, 685.
- calves, Rec. IX, 693.
- cattle, Rec. IX, 195.
- geese, Rec. X, 497.
- guinea pigs, Rec. XI, 291.
- parrots, Rec. XI, 291.

puerperal, in swine, treatment, Rec. XII, 7.

summer, of cattle and horses, Rec. IV, 813.

Septoglaum arachidis, notes, Rec. X, 363.

Septoria—

- aciculosa*, notes, Rec. VI, 823.
- ampelopsidis*, notes, Rec. IV, 956.
- armoracæ*, notes, Rec. III, 307.
- asclepiadicola*, notes, Rec. IV, 50.
- atriplex*, notes, Rec. IV, 50.
- avenæ*, n. sp., notes, Rec. VI, 909.
- azaleæ*, n. sp., affecting azaleas, Rec. XI, 759.
- betæ*, notes, Rec. II, 581.
- briosiana*, notes, Rec. VI, 909.
- bupleurina* on *Bupleurum longifolium*, Rec. VI, 311.

cerasina—

- notes, Rec. II, 291, 482; IV, 837; VII, 138, 788; X, 649.
- treatment, Rec. III, 878.

curvata on Robinia, Rec. X, 764.

dianthi—

- notes, Rec. III, 308; VI, 234; VII, 141.
- on carnations, Rec. IV, 54.

dolichi, notes, Rec. VI, 58.

drummondii, notes, Rec. III, 810.

elymi, notes, Rec. III, 810.

erigerontis, notes, Rec. IV, 50.

exitalis, notes, Rec. VI, 909.

glumarum, notes, Rec. VI, 909; X, 864.

graminum—

- notes, Rec. VI, 909; VII, 140; XII, 567.
- parasitism, Rec. X, 452; XI, 948.

helianthi, notes, Rec. X, 260.

jackmani, notes, Rec. III, 810.

lactucæ, notes, Rec. XI, 752; XII, 353.

lactucicola, notes, Rec. IV, 50.

leucostoma, notes, Rec. IV, 956.

lycopersici, notes, Rec. IX, 655; X, 362.

microspora, notes, Rec. IV, 956.

ochroleuca, notes, Rec. X, 649.

ænotheræ, notes, Rec. IV, 50.

parasitica, notes, Rec. X, 365.

petroselinæ—

- apii*, notes, Rec. III, 885; IV, 926; VI, 909; X, 265.

as a cause of celery blight, Rec. IX, 358.

notes, Rec. IX, 457; XII, 1056.

phlogis, notes, Rec. XII, 261, 359.

pimpinellæ, notes, Rec. IV, 956.

pircicola, notes, Rec. X, 450.

polygonorum, notes, Rec. IV, 50.

pruni, notes, Rec. III, 871; IV, 50.

Septoria—Continued.*ribis*—

notes, Rec. III, 217; IV, 50; V, 194; VI, 559; VII, 787.

on currants, treatment, Rec. XI, 150.

rubi, notes, Rec. II, 32; III, 411; IV, 50.

rudbeckiae, notes, Rec. IV, 50.

rumicis, notes, Rec. IV, 956.

saccharina, notes, Rec. III, 810.

similis on *Lactuca scariola*, Rec. IV, 414.

sp., notes, Rec. II, 32; IV, 50.

sp., on chrysanthemums, Rec. IV, 54.

sp., remedies, Rec. XI, 959.

spp., notes, Rec. VI, 311, 558.

Septoria disease of cultivated veronicas, Rec. VI, 312.

Sequoia—*gigantea*—

disease, Rec. IX, 659.

notes, Rec. VI, 143; VII, 961; IX, 651; XII, 755.

semperivirens, notes, Rec. VI, 143; VII, 961; VIII, 605; XI, 456.

washingtoniana. (See *SEQUOIA GIGANTEA*.)

Seraphth—

for foot-and-mouth disease, Rec. XII, 293.

inoculation experiments, Rec. XI, 696.

Serica—

assamensis, notes, Rec. XII, 770.

trociformis affecting hornbeam, Rec. XI, 762.

Sericultural—

observatories in Italy, Rec. IV, 239.

station at Padua, Italy, Rec. IV, 237.

Sericulture—

in Austria, Rec. XII, 166.

Queensland, Rec. V, 133.

notes, Rec. XI, 271.

throughout the world, Rec. XI, 764.

(See also *SILK*.)

Serradella—

analyses, Rec. V, 171; VI, 274, 294.

as a catch crop, Rec. VII, 32; VIII, 126.

a forage plant, Rec. III, 30.

affected by lime, Rec. VII, 397.

culture, Rec. VII, 397; IX, 446.

culture experiments, Bul. 2, I, 88; Rec. I, 89, 122; II, 70; III, 159; IV, 39, 646, 661; V, 171, 835; VI, 34, 294, 405; VII, 295; VIII, 401.

for green—

fodder, Rec. II, 580.

manuring, Rec. V, 699.

hay, analyses, Rec. VIII, 810.

inoculation experiments, Rec. III, 499; IV, 782; V, 620.

nitrogen fertilizers for, Rec. V, 850.

notes, Rec. II, 337, 650; III, 30; V, 910; XII, 329.

phosphatic fertilizers for, Rec. V, 170.

seed, germination test, Rec. VI, 429.

varieties, Rec. II, 149.

Serum—

antitetanus, Rec. XI, 288.

antitoxic—

for hog cholera, Rec. VIII, 428; IX, 93; X, 496; XI, 89, 290, 495; XII, 787.

hog cholera and swine plague, Rec. VIII, 268; XI, 89.

Serum—Continued.

diagnosis of hog cholera, Rec. VIII, 927.

from tuberculous animals for diagnosing tuberculosis, Rec. VI, 934.

globulin, solubility in water, Rec. XI, 706.

immunizing, specific action, Rec. XI, 90.

injections as a preventive against lung diseases in horses, Rec. IX, 187.

new injector, Rec. VII, 893.

of inoculated animals, active properties, Rec. VII, 253.

streptococcus and antistreptococcic, Rec. VII, 280.

treatment for—

rinderpest, Rec. XI, 91.

tuberculosis, Rec. XI, 795.

Serums—

agglutinating Trypanosoma, Rec. XII, 890.

bactericidal action as affected by different substances, Rec. XII, 1094.

experiments, Rec. X, 896.

for diagnosing tuberculosis, Rec. XII, 892.

immunized against *Bacillus pyocyaneus*, Rec. XII, 890.

preventive, Rec. VIII, 525.

Service berries—

as host of Gymnosporangium, Rec. II, 712.

notes, Rec. III, 522; X, 49.

varieties, Rec. II, 355; III, 701; IV, 556; VI, 55; VII, 214; VIII, 134.

Service berry, adaptability to cold climates, Rec. VIII, 601.

Service tree, notes, Rec. XII, 55.

Sesame—

and cotton-seed oils, differentiation, Rec. XI, 23.

cake—

analyses, Rec. III, 746; VIII, 153.

effect on butter, Rec. X, 586, 587, 685, 686; XI, 281.

for cows, Rec. VII, 708.

lambs, Rec. VII, 523.

influence on butter fat, Rec. VIII, 161.

lecithin content, Rec. V, 803.

poisoning of cattle, Rec. XI, 595.

v. linseed cake for cows, Rec. III, 656, 745.

peanut cake for lambs, Rec. III, 266; V, 227; VII, 524.

culture experiments, Rec. IX, 41.

culture experiments in India, Rec. V, 333.

notes, Rec. IX, 41; X, 884.

oil—

color reactions, Rec. XI, 510.

detection, Rec. XI, 312; XII, 908, 1006.

detection in butter, Rec. IX, 887, 1024; XI, 1007.

detection in margarine, Rec. IX, 887, 1024.

reaction for, Rec. V, 728.

reaction for detection of margarin, Rec. XI, 888.

reaction in butter, Rec. IX, 795.

reaction, reliability, Rec. XI, 814.

testing olive oil for, Rec. V, 728; X, 413.

Sesamia nonagrioides—

notes, Rec. VIII, 507, 805; X, 167; XI, 564.

parasites, Rec. XII, 469.

Sesamum indicum. (See *SESAME*.)

Sesbania, analyses, Rec. IX, 129.

Sesbania—

egyptiaca, analyses, Rec. XI, 249.

macrocarpa, notes, Rec. VI, 207; XII, 760.

Sesia—

hemizonæ, notes, Rec. IV, 839.

ithacæ, notes, Rec. IX, 1070.

rutilans, notes, Rec. X, 867; XII, 364.

sigmoidea, notes, Rec. IX, 1070.

stelidiformis, notes, Rec. IX, 463.

Sesiidæ—

American, food habits, Rec. IX, 1063.

food habits of larvæ, Rec. XII, 580.

North American, new species, Rec. IX, 1070.

Setaria— (See also *CHÆTOCHLOA* and *MILLET*.)

caudata, notes, Rec. II, 259.

glauca—

analyses, Rec. III, 629.

notes, Rec. II, 321; III, 598; V, 911, 313; VIII, 234.

root system, Rec. IV, 46.

italica—

germanica, notes, Rec. VI, 714; VIII, 810; X, 629.

notes, Bul. 2, I, 189; Rec. II, 24, 321, 601; III, 29; VI, 714; IX, 361; X, 629.

(See also HUNGARIAN GRASS.)

macrostachya, notes, Rec. VIII, 401.

verticillata, notes, Rec. VI, 403.

viridis—

notes, Rec. II, 321; V, 911; VIII, 234.

root system, Rec. IV, 46.

Setaria, culture, Rec. X, 349.

Setarias, affected by plant lice, Rec. V, 990.

Setchellia punctiformis, notes, Rec. VII, 513.

Sewage—

absorption by soils, Rec. X, 618.

ammonia, method of analysis, Rec. XII, 418.

analyses, Rec. V, 164; VI, 287; VIII, 485; X, 413, 1033; XII, 933.

analyses, methods of recording, Rec. XI, 510.

as a fertilizer, Rec. VI, 400, 713; VII, 379, 573.

determination of oxygen content, Rec. XI, 312.

disposal, Rec. X, 196; XII, 835.

disposal—

and river pollution, Rec. VI, 134.

in foreign countries, Rec. XI, 831.

on the farm, Rec. VIII, 391.

effect on—

milk, Rec. XI, 282.

milk supply, Rec. IX, 597.

farming in India, Rec. VII, 670.

farms of Freiburg, Baden, Rec. X, 98.

fertilizing value, Rec. XII, 324.

injurious effects, Rec. VIII, 636.

irrigation, Rec. IX, 395.

irrigation—

fields, influence on health, Rec. VII, 756.

filtration, Rec. XI, 1093.

manufacture of manure from, Rec. V, 436.

polluted streams, Rec. VII, 486.

purification, Rec. VII, 293; XII, 835.

sludge, analyses, Rec. V, 575; VII, 669; XII, 225, 531, 933.

treatment, Rec. XII, 38.

Sewage—Continued.

utilization, Rec. VII, 176, 756; VIII, 391; IX, 825.

waters—

analyses, Rec. III, 530.

for meadows, Rec. VIII, 40.

purification by iron sulphate, Rec. V, 436.

Sex—

in animals, determination and regulation, Rec. X, 522.

fungi, appearance, Rec. X, 23.

plants, Rec. IX, 328, 812; X, 519.

thoroughbred calves, Rec. VIII, 619.

origin and development in *Triticum*, Rec. IX, 624.

Sexual—

organs, external, of cattle, contagious disease, Bul. 2, I, 111.

production of Ascomycetes, Rec. IX, 328.

Shad seale, notes, Rec. XII, 332.

Shaddock— (See *POMELOS*.)

Shade—

effect on—

garden crops, Rec. X, 435.

growth of leaves, Rec. X, 612.

plant diseases, Rec. X, 435.

plant growth, Rec. VIII, 957; XI, 420.

vegetation, Rec. X, 610.

yield and quality of tobacco, Rec. XII, 542.

loving plants, intensity of respiration in, Rec. III, 831; IV, 613.

trees— (See also *TREES*.)

care, Rec. IX, 248; X, 965.

decay, Rec. XI, 1052.

defoliation, Rec. IX, 962.

diseases, Rec. IX, 568.

early dropping of leaves, Rec. XI, 553.

for coffee, Rec. XI, 744.

fungi on, Rec. V, 884; VI, 312, 316.

in cities, diseases, Rec. XI, 553.

insect injuries, Rec. V, 654, 686.

insects affecting, Rec. V, 654, 686, 884; VI, 316, 649, 915; VII, 792; VIII, 804; X, 272; XI, 273, 370.

notes, Rec. III, 246; V, 682, 870; X, 252, 258; XI, 852, 1051.

of Utah, notes, Rec. IX, 453.

ornamental, Rec. VI, 903.

protection, Rec. XII, 957.

pruning, Rec. VII, 506.

relative immunity to insect attack, Rec. VIII, 805.

street planting, Rec. II, 741; VII, 135; VIII, 890; IX, 951; X, 223; XII, 650.

varieties, Rec. I, 320.

Shading, effect on soils, Rec. VIII, 676, 756.

Shaggy mane. (See *COPRINUS COMATUS*.)

Shaking—

and stirring apparatus, Rec. VII, 15, 273.

machine, Rec. VIII, 378.

Shallots—

blight, notes, Rec. XII, 254.

fertilizer formula, Rec. XII, 851.

Macrosporium parasiticum on, Rec. X, 155.

Sharpshooter, glassy-winged, Rec. IV, 668.

Shasta fir, notes, Rec. IX, 651.

Shavings *v.* straw as bedding, Rec. XI, 971.
 Sheaf worm, fir leaf, Rec. VI, 313.
 Shed for stratified seeds, Rec. V, 875.
 Sheele's green *v.* Paris green as an insecticide, Rec. X, 268.
 Sheep— (See also LAMBS.)
 abortion. (See ABORTION.)
 alfalfa—
 for, Rec. III, 624; XI, 378, 662; XII, 72, 373.
 v. prairie hay for, Rec. XII, 875.
 sorghum fodder for, Rec. XII, 1074.
 Algerian, Rec. V, 439.
 alsike for, Rec. XII, 72.
 and calves, entozoic diseases, Rec. I, 233.
 goats, comparative digestive power, Rec. IV, 738.
 animal parasites, Rec. II, 79.
 as affected by *Swainsonia galegifolia*, Rec. IX, 653.
 at Louisiana Station, notes, Rec. XII, 878.
 Aveyron breed, Rec. VII, 708.
 barley—
 and beans for, Rec. VIII, 620.
 bran for, Rec. IX, 682.
 malt for, Rec. IV, 609.
 wheat for, Rec. VIII, 250.
 for, Rec. V, 1083; VIII, 620; IX, 972.
 barley meal for, Rec. VIII, 621.
 barn, construction, Rec. IV, 196.
 barrenness, extent of occurrence, Rec. XI, 792.
 beans for, Rec. VIII, 620.
 beets—
 for, Rec. XI, 576.
 v. beet pulp silage for, Rec. IX, 173.
 berry, notes, Rec. III, 522.
 blackleg, Rec. III, 537.
 bodily development, Rec. VII, 521; IX, 1080.
 botfly, notes, Rec. II, 79; III, 152, 792; VII, 413; VIII, 612; IX, 152, 994; XI, 263, 272; XII, 294.
 bots in head, Rec. XI, 191.
 breed tests, Rec. IV, 420; VI, 572; VII, 705; XII, 276.
 breeding, Rec. V, 1104; XII, 478.
 breeding—
 ewes, winter rations for, Rec. IV, 182.
 experiments, Rec. XI, 1077; XII, 878.
 in Argentina, Rec. V, 1033.
 Jamaica, Rec. IX, 481.
 the Deccan, Rec. VIII, 157.
 breeds, Rec. IX, 175.
 breeds—
 in Great Britain, Rec. III, 729.
 notes, Rec. II, 642.
 broad-tailed, of Persia, Rec. V, 603.
 buckwheat, wild, for, Rec. V, 1083.
 bushes and saltbushes, Rec. VIII, 596.
 carcasses, analyses, Rec. VI, 463.
 caseous broncho-pneumonia, Rec. XI, 696.
 clover, red, for, Rec. XII, 72, 373.
 coarse-wool, in Russia, Rec. IX, 276.
 commissioners of Montana, report, Rec. XI, 1092.
 concentrated feeding stuffs for, Rec. IX, 477; X, 281.
 condimental stock foods for, Rec. XII, 378.

Sheep—Continued.
 condition in the United States, Rec. III, 813.
 corn—
 and barley for, Rec. IX, 972.
 peas for, Rec. XII, 373.
 silage for, Rec. IX, 972.
 cracked, for, Rec. V, 1083; VII, 706.
 fodder *v.* silage for, Rec. III, 412.
 for, Rec. IX, 972; XII, 173, 373.
 ground, for, Rec. IX, 972.
 corn meal for, Rec. III, 572.
 corrals, analyses of manure, Rec. XI, 526.
 cotton seed *v.* cotton-seed cake for, Rec. VIII, 244.
 cotton-seed meal for, Rec. III, 572.
 crossbreeding, Rec. V, 504; VII, 248.
 crossbreeding—
 experiments, Rec. XII, 1077.
 of Merino and Shropshire, Rec. II, 512; IV, 187.
 crossing, continuous, Rec. XI, 80.
 crossing for milk production, Rec. V, 540.
 digestion experiments, Bul. 2, II, 43, 53; Rec. II, 645; III, 454, 638; IV, 569, 736; V, 532, 811; VI, 159, 317, 746; VII, 153, 316, 597, 796; VIII, 321, 421, 422, 510, 616, 617; IX, 373, 576, 783; X, 71, 348, 473, 477, 667, 879, 1082, 1083; XI, 276, 617, 662, 873, 965; XII, 171, 665, 667, 777, 872, 873.
 dipping—
 for scab, Rec. IX, 292.
 method, Rec. XI, 191.
 vat, Rec. VII, 882; VIII, 720.
 dips—
 analyses, Rec. XI, 314.
 experiments, Rec. X, 296.
 diseases, Rec. IX, 693.
 diseases, nature and treatment, Rec. III, 619.
 disinfectants, analyses, Rec. XI, 314.
 distillery grains, linseed cake, and oats for, Rec. XII, 173.
 Dorset horn, history, Rec. V, 74.
 dried brewers' grains for, Rec. X, 1084.
 Echinococcus multilocularis in, Rec. X, 95.
 effect of feed—
 on fat and wool, Rec. X, 985.
 fat, flesh, and wool, Rec. X, 780.
 tallow, Rec. XII, 583.
 wool, Rec. IV, 183.
 effect—
 of temperature on gains, Rec. VII, 707.
 on ewe of nursing single and twin lambs, Rec. XII, 74.
 endoglobular hæmatozoa of, Rec. XI, 797.
 enzootic neuritis, Rec. XI, 93.
 enzootic ophthalmia in, Rec. XII, 92.
 fat, fuel value, Rec. III, 386.
 fat-tailed, origin, Rec. VII, 617.
 fattening—
 experiments at Michigan Station, summary, Rec. VIII, 924.
 experiments at Wisconsin Station, summary, Rec. VII, 615.
 experiments in Norway, Rec. V, 919; VIII, 154; IX, 1075; X, 776; XI, 779.
 for cold storage, Rec. XI, 577.
 over long periods, Rec. XI, 179.

Sheep—Continued.

fattening lambs *v.* yearlings, Rec. XII, 673.

fattening wethers—

ewes, and breeding ewes, Rec. X, 1076.

ewes, and lambs, Rec. VIII, 251; X, 776.

in winter, Rec. XI, 179, 181.

feed—

analyses, Rec. VI, 444.

required per pound of gain in lambs, Rec.

II, 436; VIII, 252.

feeding, Rec. IX, 377.

feeding—

in confinement *v.* yards, Rec. VIII, 251;
XII, 875.

Connecticut, Rec. VIII, 423.

Montana, Rec. XII, 72.

Nebraska, Rec. XII, 875.

indoors *v.* outdoors, Rec. V, 196.lambs before and after weaning, Rec.
XII, 74.lambs *v.* yearlings, Rec. XII, 673.

methods, Rec. XI, 1072.

on wild plants, Rec. XI, 997.

fertility in, Rec. XI, 793.

fescue. (*See* FESCUE, SHEEP.)fleece, weight of different breeds, Rec. X,
282.

flesh, heat of combustion, Rec. XII, 178.

fodders for, Rec. X, 1084.

folding, Rec. IX, 88.

foot-and-mouth disease, Rec. X, 694; XI,
695.

foot louse, Rec. IX, 67.

foot rot, Rec. II, 731; III, 152, 619; V, 245;
IX, 994; XI, 1092; XII, 292, 792, 1093.

forage crops for, Rec. XI, 184.

gid, Rec. III, 152.

gorse for, Rec. XI, 773.

grain—

alone for, Rec. IV, 841.

for ewes, Rec. IV, 260.

grazing on forest reserves, Rec. IX, 844; X,
52; XII, 399.

growth—

as affected by composition of milk, Rec.
XI, 576.on pastures differently fertilized, Rec.
XII, 75.

hay for, Rec. III, 624; V, 244, 920.

hay *v.* rice meal and Swedish turnips for,
Rec. II, 464.

head scab, Rec. II, 79; III, 537; V, 79.

head scab, in Great Britain, Rec. II, 79; VI,
471.

hemoglobinemia, treatment, Rec. XI, 895.

hydroids in, Rec. II, 79.

ictero-hæmaturia, Rec. VII, 986.

infectious—

abortion, Rec. IX, 994.

pneumonia, Rec. X, 497.

influence of breed, Rec. IX, 578.

injuries to forests and irrigation works, Rec.
XI, 748.

Kabyli breeds, Rec. VII, 617.

Kafir corn—

heads for, Rec. XI, 1071.

stover for, Rec. XI, 1071.

Sheep—Continued.

linseed cake—

and barley for, Rec. VIII, 250.

dried distillery grains for, Rec. IX,
172.

wheat for, Rec. VIII, 250.

for, Rec. V, 920; VIII, 250; XII, 588.

liver fluke, Rec. III, 152; VII, 252; X, 93; XI,
797; XII, 792.

loco poisoning, Rec. II, 395; V, 629.

louping ill, Rec. V, 341; VI, 471; IX, 96, 191,
994.

louse, notes, Rec. II, 79.

lung diseases, Rec. III, 152.

lungs, inflammation of, nature and treat-
ment, Rec. III, 619.

lungworms, Rec. VII, 252; IX, 994; XII, 792.

malignant foot disease, Rec. X, 694.

malt and barley for, Rec. IV, 609.

management of breeding ewes and lambs,
Rec. XII, 380.

mangel-wurzels—

for, Rec. XI, 773.

v. sugar beets for, Rec. VI, 156.

manual, Rec. XI, 381.

manure—

analyses, Rec. VI, 980; VII, 195; VIII, 117,
300; IX, 939; XI, 831; XII, 39, 931, 933.

fertilizing constituents, Rec. V, 143.

loss of nitrogen in drying, Rec. V, 28.

production, Rec. V, 387.

value, Rec. II, 232; III, 91; XI, 229.

meadow hay—

and oat straw for, Rec. X, 1084.

for, Rec. V, 920; X, 1084.

metabolism—

as affected by asparagin and ammonia,
Rec. XII, 874.experiments, Rec. VII, 235, 804; IX, 171;
X, 1083; XI, 772.

methods of studying, Rec. XI, 773, 778.

milk—

analyses, Rec. IV, 515; V, 961; VIII, 441.

cheese from, Rec. V, 957; IX, 796; X, 792.

dairying, Rec. V, 962.

digestibility, Rec. V, 957.

East Friesian, Rec. VII, 708; IX, 283.

galactase in, Rec. XI, 580.

studies, Rec. IV, 390, 514; IX, 283.

molasses—

cake for, Rec. VIII, 621.

for, Rec. VIII, 621; X, 772.

multiple adenoma formation in lungs, Rec.
XI, 289.

mustard, white, for, Rec. XII, 276.

mutton flock, establishing, Rec. X, 776.

mutton, French, Rec. VIII, 157.

nasal bot, Rec. VII, 413.

nematode worms in, Rec. XII, 598.

neoplasma, Rec. IX, 497.

new, from British Northwest Territory, Rec.
IX, 1030.

nitrogenous—

foods with and without salt for, Rec. VIII,
620.rations for, Rec. II, 437; III, 572; V, 236,
241.

Sheep—Continued.

nitrogenous—continued.

v. carbonaceous rations for, Rec. IV, 183;
VI, 463; VII, 605.

nodular disease, Rec. XII, 598.

number and value, Rec. V, 799.

nutritive ratio of rations for, Rec. III, 575.

oat straw—

cut, for, Rec. X, 1084.

for, Rec. IX, 682.

oats—

and timothy for, Rec. IX, 682.

for, Rec. V, 920; XII, 173, 588.

of Hungary, Rec. XI, 381.

oil cake v. grain for, Rec. X, 985.

parasites, Rec. X, 594.

parasites—

in lungs, Rec. IX, 190.

intestinal, Rec. II, 318; XII, 598.

notes, Rec. II, 79; X, 594.

parasitical diseases, treatment, Rec. XI, 693.

parasitism, Rec. IX, 693.

paspalum grass for, Rec. XII, 276.

pasturage—

supplementary feeding, Rec. XI, 779.

v. soiling and dry feed for, Rec. V, 74.

pastures, fertilizing, Rec. X, 1085.

pea meal and sunflower-seed cake for, Rec. X, 780.

peas for, Rec. XII, 373.

peat-molasses cake for, Rec. VIII, 621.

pernicious and epizootic anæmia, Rec. X, 95.

pigeon-grass seed for, Rec. V, 1083.

plants for pasture, Rec. XII, 629.

pleurisy in, Rec. III, 619.

poisoning by—

deadly nightshade, Rec. XI, 495.

larkspur, Rec. X, 391.

loco, Rec. II, 395; V, 629.

Pratia erecta, Rec. XI, 120.

poisonous plants, feeding, Rec. X, 793.

poppy cake for, Rec. III, 572.

potato residue for, Rec. III, 570.

potatoes for, Rec. V, 540; VI, 163, 573; VII, 64, 248, 616; XI, 181.

pox—

in Montana, Rec. XI, 1092.

notes, Rec. XI, 793, 995; XII, 790.

prevention, Rec. XI, 895.

studies, Rec. XI, 88.

virus, effect of desiccation and heat, Rec. XII, 689.

wool as source of infection, Rec. XI, 895.

pseudoscabies, Rec. XII, 95.

pseudotuberculosis, Rec. X, 192.

purslane, culture experiments, Rec. X, 244.

raising, Rec. VI, 752.

raising—

at Virginia Station, Rec. V, 74.

for mutton, Rec. X, 776; XI, 381; XII, 798.

in Algeria, Rec. VII, 617.

America, history and development,

Rec. XII, 781.

Argentina, Rec. X, 282.

Colorado, Rec. V, 608; VII, 705; XI, 972.

Germany, Rec. VIII, 427.

Pacific Northwest, Rec. XII, 380.

Sheep—Continued.

raising—continued.

in Sweden, Rec. XII, 178.

the United States, Rec. III, 904.

West Virginia, Rec. IV, 938.

Wisconsin, Rec. IV, 197; VII, 986.

west of the Mississippi, Rec. III, 729.

rape for, Rec. II, 677; IV, 140; VII, 64; VIII, 327; XII, 276.

rations, limited v. ad libitum, Rec. VIII, 251.

relative cost of producing mutton and beef,

Rec. II, 437.

relative gains—

of lambs and pigs, Rec. II, 436.

wethers, ewes, spayed ewes, and lambs,

Rec. VIII, 155.

rice meal v. Swedish turnips for, Rec. II, 464.

roots—

for, Rec. III, 624.

v. dried food for, Rec. IV, 485.

ruta-bagas for, Rec. XI, 1071.

scab, Rec. IX, 95.

scab—

dips, Rec. IX, 291.

in Illinois, Rec. XII, 290.

investigations, Rec. X, 998.

mite, notes, Rec. IX, 994; X, 895; XI, 370.

mite, remedies, Rec. XI, 191.

nature and treatment, Rec. III, 228, 537, 619.

notes, Rec. II, 79; III, 152, 228; V, 204;

VII, 66, 315; IX, 574; X, 895; XI, 895, 995;

XII, 189, 684.

quarantine regulations in Montana, Rec. XI, 1092.

studies, XII, 92.

treatment, Rec. IV, 171; X, 793; XI, 593, 895.

shearing—

before fattening, Rec. V, 504.

effect on milk production, Rec. VII, 992.

in winter before fattening, Rec. IV, 184.

machines, Rec. V, 350, 450.

shelter for, Rec. VI, 161.

sheltered v. unsheltered, Rec. V, 71; XII, 875.

Shropshire—

and Merino, crossing, Rec. IV, 187.

notes, Rec. II, 642.

silage—

for, Rec. III, 412, 624; IV, 738; IX, 972.

v. corn fodder for, Rec. III, 412.

dried food for, Rec. IV, 738.

slaughter tests of, Rec. V, 238.

soiling—

crops v. hay for, Rec. V, 74.

ewes and lambs, Rec. II, 437.

experiments, Rec. II, 437.

sorrel— (*See also* OXALIS CORNICULATA.)

analysis, Rec. III, 629.

notes, Rec. IV, 47.

root system, Rec. IV, 47.

Southdown, notes, Rec. II, 642.

staggers, Rec. II, 79; X, 694; XII, 294.

statistics of, Rec. II, 518.

Stipa spartea affecting, Rec. XII, 95.

stomach worms, Rec. V, 354; IX, 994; XII, 688, 792, 997.

- Sheep—Continued.
 sugar-beet pulp—
 for, Rec. XII, 374.
 silage for, Rec. IX, 173.
 v. fodder beets for, Rec. IX, 173.
 wet *v.* dry, for, Rec. III, 651.
 sugar beets for, Rec. VI, 156; VII, 706; VIII, 816; XI, 181; XII, 1074.
 sunflower-seed cake for, Rec. X, 780.
 system of feeding, Rec. V, 376.
 tapeworm, Rec. V, 608, 693; XI, 1092.
 ticks—
 destruction, Rec. V, 264, 901; VII, 44.
 kerosene emulsion for, Rec. III, 291; V, 901.
 notes, Rec. II, 79; III, 46; IX, 994.
 toxic substances produced by intestinal worms, Rec. XI, 997.
 tuberculosis, Rec. VII, 712; XII, 685.
 tuberculosis, susceptibility to, Rec. XII, 1085.
 turnips for, Rec. IV, 570; V, 920; VI, 159; X, 985, 1084; XI, 1071, 1077; XII, 173.
 wheat—
 and barley for, Rec. VIII, 250.
 oil cake for, Rec. VIII, 251.
 bran for, Rec. V, 387.
 cracked, for, Rec. VII, 706.
 for, Rec. III, 624.
 wheat screenings—
 and oil cake for, Rec. VIII, 251.
 timothy for, Rec. IX, 682.
 for, Rec. V, 1083.
 wide *v.* narrow rations for, Rec. IV, 183; VI, 463; VII, 605.
 winter fattening in West Virginia, Rec. XII, 73.
 Sheepberry, notes, Rec. IV, 656.
 Shell—
 marl, analyses, Rec. X, 1031.
 rock, analyses, Rec. X, 229, 235.
 Shellbark hickory, notes, Rec. II, 512; III, 521.
 Shellfish, analyses, Rec. IV, 59.
 Shells—
 analyses, Rec. II, 315; X, 194.
 of Franklin County, Ohio, catalogue of, Rec. II, 253.
 Shelter—
 belts—
 notes, Rec. VII, 587.
 trees for, Rec. IV, 728.
 use in agriculture, Rec. XII, 629.
 for cows, effect on milk production, Rec. V, 972.
 stock, Rec. V, 71, 195.
 hedges, trees for, Rec. VII, 134.
Shepherdia argentea. (See BUFFALO BERRY.)
 Shepherd's purse—
 notes, Rec. III, 308, 598, 599; IV, 47, 167, 699; V, 306, 398, 685; VI, 57; IX, 143, 1055.
 root system, Rec. IV, 46.
Sherardia arvensis, notes, Rec. V, 539.
 Ship stuff, analyses, Rec. I, 197; II, 340; III, 616, 878; IV, 173; XII, 169.
 Ships, rainfall measurements, Rec. X, 419.
 Shoddy waste, analyses, Rec. VIII, 880.
 Shoeing—
 animals, Rec. VIII, 1016.
 for special purposes, Rec. VIII, 525.
 Shoestring, notes, Rec. III, 522.
 Shooting stars, Rec. XI, 221.
 Shoots, scalded, transpiration, Rec. IV, 613.
 Shop—
 courses for mechanical engineering students, Rec. VI, 264.
 training in its relation to engineering courses, Rec. VIII, 558.
 Shopwork, instruction in Iowa, Rec. VI, 486.
 Shores and harbors, grass for protecting, Rec. VI, 415.
 Shorthorn—
 calves, strength of rennet from, Rec. II, 407.
 cattle—
 notes, Rec. XI, 983.
 pedigree, Rec. II, 4.
 cows— (See Cows.)
 steers, feeding experiments, Rec. II, 360.
 Shorthorns in France and England, Rec. IX, 983.
 Shorts—
 analyses, Rec. I, 255; X, 276; XII, 981.
 and bran—
 digestibility, Rec. X, 180.
 v. corn meal and potatoes for pigs, Rec. I, 216.
 and corn meal for pigs, Rec. X, 674; XI, 667, 879.
 skim-milk mixtures, analyses, Rec. VI, 444.
 for pigs, Rec. V, 993.
 Shot borer, notes, Rec. VI, 740; X, 866.
 Shot-hole fungus—
 notes, Rec. III, 217, 871; V, 194; VI, 558, 899, 1000; VII, 787; VIII, 412; IX, 753.
 treatment, Rec. IV, 400, 955; X, 661.
 Shrew—
 broad-nosed, distribution and use, Rec. X, 25.
 Cooper's, distribution and use, Rec. X, 25.
 long-tailed, of the eastern United States, Rec. VIII, 960.
 mouse, as an enemy of the locust, Bul. 2, II, 93.
 short-tailed, distribution and use, Rec. X, 25.
 Shrews of the American—
 genera *Blarina* and *Notiosorex*, Rec. VIII, 960.
 genus *Sorex*, Rec. VIII, 960.
 Shrikes, food, Rec. X, 726.
 Shrimp refuse, ground, analyses, Rec. XI, 39.
 Shrub cuttings, season for planting, Rec. XI, 51.
 Shrubby—
 in winter, Rec. VII, 586.
 native for lawns, Rec. IX, 140.
 planting, Rec. VIII, 495; IX, 951.
 Shrubs—
 affected by mistletoe, Rec. VII, 94.
 at Canada Experimental Farm, Rec. XI, 942.
 Iowa Station, Rec. III, 788.
 Ontario Agricultural College, Rec. IX, 451.
 Oregon Station, list of, Rec. II, 70.
 Purdue University, Rec. XII, 24.
 Steiger parsonage, Norway, Rec. VII, 506.
 Utah Station, Rec. V, 53.
 flowers and fruits, Rec. XII, 827.
 for hedges, Rec. VII, 776.
 rockeries, Rec. IX, 140.
 the seaside, Rec. X, 440.
 garden, notes, Rec. X, 254.
 hardy, Rec. IX, 358; XII, 55.

Shrubs—Continued.

- in greenhouses and orangeries, Rec. VI, 549.
- insects affecting, Rec. XII, 862.
- method of trimming, Rec. IV, 694.
- native, Rec. X, 48.
- notes, Rec. XII, 562.
- notes on species, Bul. 2, II, 91, 136.
- of California, Rec. V, 589.
 - Canada, notes, Rec. II, 6.
 - Death Valley, California, Rec. V, 90.
 - Nebraska, Rec. III, 521.
 - South Dakota, Rec. VII, 507; VIII, 315.
- ornamental, Rec. IV, 728; VIII, 314; IX, 244; X, 97; XII, 152.
- ornamental—
 - adapted to Ontario, Rec. VI, 56, 729.
 - cultivated for their flowers, Rec. X, 153.
 - for Minnesota, Rec. IV, 654.
 - fungi affecting, Rec. XI, 477.
 - hardy, Rec. XI, 498.
 - insects affecting, Rec. XI, 477.
 - notes, Rec. VI, 426; VII, 586; XI, 855.
 - planting, Rec. XII, 347.
 - propagation, Rec. VI, 426; X, 153.
 - pruning, Rec. XI, 50, 852.
 - varieties, Rec. XI, 852.
- propagation from cuttings, Rec. I, 44.
- pruning, Rec. VII, 772.
- Russian, tests, Rec. XI, 647.
- species, Rec. III, 45, 246, 360, 361, 598.
- species planted at Washington Station, Rec. IV, 922.
- winterkilling, Rec. V, 682.
- winter protection, Rec. X, 963.

Siberian—

- almond, white, notes, Rec. III, 788.
- pea tree, notes, Rec. IV, 655; VI, 427; VII, 135; IX, 560.
- plague in Russia, Rec. VIII, 525.

Sida—

- clitellii*, notes, Rec. III, 444; IV, 557; VIII, 687.
- hederacea*, notes, Rec. VI, 732.
- rhombifolia*, notes, Rec. VI, 207.

Sida fiber, notes, Rec. VI, 207.

Side-oats, grama, notes, Rec. X, 147, 343; XII, 332.

Sigalphus—

- canadensis*, notes, Rec. II, 104.
- curculionis*, notes, Rec. II, 103.

Signiphora nigrita, notes, Rec. IX, 663.

Signoretia sp., notes, Rec. IV, 418.

Silage—

- alcohol in, Rec. II, 374.
- alfalfa, and Hungarian grass, loss in preparation, Rec. V, 52.
- analyses, Bul. 2, I, 83, 197, 209; Bul. 2, II, 39; Rec. I, 202; II, 41, 57, 133, 170, 208, 243, 315, 350, 359, 504, 579, 589, 666, 668, 741, 743; III, 157, 288, 289, 318, 357, 401, 458, 715; IV, 64, 177, 733; V, 61, 194, 195, 217, 596, 794; VI, 66, 331, 444, 569, 752, 1008; VII, 155, 336, 614, 835; VIII, 151, 331, 426, 508, 810; IX, 682, 786, 866; X, 275, 474, 678; XI, 381, 777, 882, 971.
- and beets for milk production, Rec. II, 247; V, 887, 969.
- roots for swine, Rec. V, 632.
- silos, Rec. VII, 430, 630, 766; VIII, 222, 492; X, 43, 244.

Silage—Continued.

- and straw for steers, Rec. VI, 451.
- barley, analyses, Rec. X, 276.
- beet fodder, Rec. IX, 981.
- beet-leaf, feeding value, Rec. VIII, 252, 821; IX, 479.
- beet pulp. (See BEET PULP SILAGE.)
- biology, Rec. I, 200.
- chemical composition, Rec. I, 90.
- clover, digestibility and heat of combustion, Rec. XII, 873.
- cooked and uncooked, digestibility, Rec. II, 373.
- corn and soy bean—
 - analyses, Rec. III, 289; V, 195.
 - digestibility with goats, Rec. V, 668.
 - effect on yield and quality of milk, Rec. V, 1065.
 - food value, Rec. V, 668.
 - keeping quality, Rec. IV, 36.
- corn for, Bul. 2, I, 171; Rec. II, 116; VI, 34, 716; VII, 862.
- cost—
 - and feeding value, Rec. IX, 790.
 - of dry matter in, Rec. II, 248.
 - preparation, Bul. 2, II, 96.
 - storing, Rec. II, 350.
- cowpea, Rec. II, 270; X, 847.
- cowpea—
 - analyses, Rec. III, 157; V, 794; VIII, 508.
 - digestibility, Rec. VIII, 510.
- crops—
 - for, Rec. I, 88; II, 270, 412, 479; IV, 36, 154; VIII, 778; IX, 866; XII, 797, 1038.
 - methods of growing and harvesting, Rec. I, 48.
- digestibility, Rec. I, 296; II, 248, 374, 741; III, 459, 714; VI, 746; VIII, 510; X, 880; XI, 566.
- digestion experiments, Rec. II, 429; III, 713; IV, 68, 736.
- effect on—
 - albuminoid consumption, Rec. IV, 69.
 - composition of milk, Rec. II, 66.
- experiments with, Bul. 2, I, 174.
- feeding, Rec. V, 687; VII, 30.
- feeding—
 - experiments, Rec. II, 204, 247, 440, 660; IX, 88, 981.
 - methods, Rec. I, 88.
 - value, Bul. 2, I, 66; Bul. 2, II, 77; Rec. III, 28, 716.
- fermentation, Rec. I, 200; III, 587; V, 60.
- for beef production, Rec. V, 632.
- cattle, Bul. 2, I, 67; Rec. II, 176; IV, 607.
- cows, Bul. 2, II, 80; Rec. II, 247, 646, 666; III, 153, 216, 222, 473; VI, 453, 460, 748, 919; VII, 57, 976; VIII, 86, 160, 826, 1019; IX, 91; XII, 678.
- heifers, Rec. I, 140; III, 607.
- hens, Rec. III, 36.
- horses, Rec. XI, 183, 599.
- lambs, Rec. II, 232; IV, 356.
- pigs, Rec. II, 282; IX, 784; XI, 589.
- sheep, Rec. III, 624; IX, 972.
- steers, Bul. 2, I, 205; Rec. I, 153, 210; II, 646; III, 129, 162, 179; IV, 154, 440; VI, 747; VIII, 517.

(See also different kinds of animals.)

Silage—Continued.

- for supplementing other feeding stuffs, Rec. V, 256.
- from corn and sorghum compared, Rec. II, 743.
- different kinds of corn, Rec. VII, 149, 425.
- meadow grass, analyses, Rec. III, 638, 639.
- oats straw, analyses, Rec. VIII, 331.
- turnips, preparation, Rec. IV, 470.
- whole stalks of corn, Rec. IV, 36.
- in Australia, preservation, Rec. VII, 32.
- dairy farming, Rec. III, 88; V, 73.
- liquor, analyses, Rec. II, 581.
- loss—
 - in making, Bul. 2, I, 196; Rec. V, 52.
 - of dry matter, Rec. VIII, 686; IX, 393.
 - nitrogen in drying, Rec. V, 28.
 - nutrients and fermentation as affected by carbon bisulphid and salt, Rec. XII, 822.
- making—
 - and feeding, Rec. II, 316; X, 43.
 - storing in Alaska, Rec. XII, 630.
 - by Rahmstedt method, Rec. IX, 644.
 - stack method, Rec. XI, 1076.
- management, Rec. XI, 576.
- methods of feeding, Rec. I, 88.
- milo maize, analyses, Rec. V, 217.
- mixed—
 - digestibility, Rec. X, 879.
 - for cows, Rec. III, 287.
- notes, Rec. I, 164; VIII, 402.
- nutritive value, Rec. I, 249.
- odors, effect on milk flavor, Rec. IX, 378.
- pea and oat, analyses, Rec. V, 195; VI, 331.
- planting corn for, Rec. III, 14, 40, 322, 848, 850, 875.
- preparation, Bul. 2, II, 76, 96; Rec. II, 690; III, 604; IV, 36, 154, 436; VII, 29, 396, 682; IX, 243; XII, 296, 977.
- preparation and use, Rec. III, 132, 604, 714, 786; XII, 495.
- press for, Rec. VI, 723; IX, 698.
- Robertson mixture for cows, Rec. VIII, 85, 86.
- samples, drying, Rec. IV, 462.
- shrinkage, Rec. III, 280.
- sorghum, Rec. X, 182.
- sorghum—
 - analyses, Rec. II, 743; V, 217; VI, 66; XII, 234.
 - for cows, Rec. III, 216, 222.
 - value as a feeding stuff, Rec. II, 743.
- soy bean—
 - analyses, Rec. V, 64.
 - digestibility, Rec. IV, 736; VIII, 510.
 - for beef production, Rec. V, 687.
 - cows, Rec. V, 1065.
- storing in field pits, Rec. II, 337.
- sugar in cooked and uncooked, Rec. II, 374.
- sweet, Rec. I, 202.
- sweet—
 - and sour, production, Rec. VI, 633.
 - corn, analyses, Rec. I, 250; IV, 177; V, 794; VIII, 508.
- temperature—
 - and condition, Rec. I, 166.
 - readings with electrical apparatus, Rec. V, 60.

Silage—Continued.

- time to harvest, Rec. I, 97.
- treatise, Rec. XII, 496.
- varieties of corn for, Bul. 2, II, 14, 23, 37, 76, 100, 113, 121, 152; Rec. I, 29, 95, 140, 165.
- views of Michigan farmers, Rec. I, 88.
- v. beets for cows, Rec. I, 41; V, 887; VIII, 1019.
- carrots for cows, Rec. VIII, 1019.
- clover silage for cows, Rec. IV, 482.
- v. corn fodder for—
 - cows, Bul. 2, I, 161, 192, 196; Rec. II, 440; 666; IV, 178, 481; V, 316; VI, 453; IX, 790.
 - sheep, Rec. III, 412.
 - steers, Rec. III, 412; IV, 69, 738; VI, 570; VIII, 77.
- v. corn stover for—
 - beef cattle, Rec. VIII, 77.
 - cows, Bul. 2, I, 74; Rec. I, 77; IV, 176.
- v. dried food for—
 - sheep, Rec. IV, 738.
 - steers, Rec. I, 250; IV, 738; VI, 570.
- v. dry corn fodder for—
 - butter production, Bul. 2, I, 193; Rec. II, 430, 440.
 - milk production, Bul. 2, I, 193; Rec. II, 430, 440.
- v. dry-cured fodder—
 - corn for heifers, Rec. II, 207, 248.
 - from corn cut at different periods of growth, Rec. II, 368.
- v. dry fodder—
 - cost of storing, Rec. I, 249.
 - for cows, Rec. I, 88, 96, 167.
 - steers, Rec. I, 251; VI, 570.
- v. field beets for milk production, Rec. I, 141.
- v. grain for—
 - cows, Rec. IX, 381, 881.
 - pigs, Rec. IV, 738.
- v. hay—
 - and roots for cows, Rec. IV, 440.
 - for butter production, Rec. III, 86.
 - milk production, Rec. II, 645.
- v. mangel-wurzels for—
 - cows, Rec. III, 404.
 - lambs, Rec. VII, 240; IX, 481.
- v. mixed—
 - feed for butter production, Rec. X, 286.
 - hay for lambs, Rec. IV, 572.
- v. potatoes for cows, Rec. IX, 883.
- v. roots for—
 - fattening lambs, Rec. V, 688.
 - milk production, Rec. V, 317.
- v. rye for cows, Rec. V, 73.
- v. sugar beets—
 - and mangel-wurzels for cows, Rec. VI, 446; VII, 240, 976.
 - for lambs, Rec. III, 872.
- v. turnips for pigs, Rec. III, 129, 133.
- weight per cubic foot, Rec. IV, 148.
- whole corn, for cows, Rec. V, 500.
- with soy bean silage and cotton-seed meal for steers, Rec. V, 687.

(See also different kinds of animals.)

Silene pratensis, notes, Rec. IX, 956.*Silene*—

- dichotoma*, notes, Rec. VII, 872.
- gallica*, notes, Rec. III, 598, 599; VII, 690.
- noctiflora*, notes, Rec. VII, 872; VIII, 703.

Silene, revision of genus, Rec. VIII, 289.

Silica—

- deposition by plants, Rec. VIII, 957.
- in plants, Rec. III, 634; IV, 388; XI, 321.
- solubility, Rec. VII, 556.
- standards for determination of turbidity, Rec. XI, 813.

Silicate of potash, analyses, Rec. XI, 719; XII, 131, 626.

Silicates—

- analyses, Rec. IX, 723.
- decomposition by—
 - boric acid, Rec. VII, 552; VIII, 24.
 - ferrous and manganous oxids, Rec. VI, 287.
- water content, Rec. VII, 270.

Silicic acid—

- in water, determination, Rec. X, 118.
- relation to lodging of cereals, Rec. X, 929.

Silk—

- chemical composition, Rec. V, 539.
- cocoon fungus, notes, Rec. XI, 67.
- cotton-tree seed cake, analyses, Rec. VIII, 821.
- culture, notes, Rec. III, 327.
- estimation in fabrics, Rec. V, 253.
- industry—
 - ancient, Rec. VI, 566.
 - in Australia, Rec. VI, 742.
 - France, history, Rec. VI, 1026.
 - Russia, Rec. IX, 197.
- mill waste, analyses, Rec. XII, 931.
- rags, analyses, Rec. VII, 111.
- specific gravity, Rec. III, 751.
- tapestry made by larvæ of *Ephesia kuehniella*, Rec. VII, 791.
- vegetable, from milk weeds, Rec. VI, 207.

Silkworm—

- American, notes, Rec. I, 21, 232.
- anatomy and physiology, Rec. VI, 653.
- cocoons—
 - apparatus for steaming and drying, Rec. XII, 196.
 - as affected by diminution of heat, Rec. XI, 65.
 - affected by external conditions, Rec. XI, 870.
 - properties, Rec. X, 871; XI, 173.
 - reeling, Rec. XII, 774.
- culture of the mulberry tree for, Rec. V, 652.
- eggs—
 - as affected by low temperatures, Rec. VI, 440.
 - development, Rec. VIII, 147.
 - hibernation, Rec. XI, 870.
 - respiratory products during incubation, Rec. XI, 870.
 - vitality, Rec. VI, 443.
- maladies, Rec. IX, 967.
- microbe, Rec. IX, 159.
- moth—
 - American, notes, Rec. V, 206.
 - Australian, Rec. IX, 260.
- new, bacterial disease, Rec. XI, 370.
- parasite in China, Rec. XI, 561.
- parasites, Rec. III, 414; VIII, 909.
- parasitic fungus, Rec. V, 348.
- refuse, analyses, Rec. IV, 903.

Silkworms—

as affected by—

- Bordeaux mixture, Rec. VI, 442.
- different colored lights, Rec. XII, 969.
- Cecropia, notes, Rec. II, 115.
- crossed races, Rec. VI, 151.
- culture, Rec. VII, 146, 880.
- feeding experiments, Rec. VI, 64.
- grasserie, Rec. III, 183.
- growth, Rec. IX, 159.
- growth as affected by the spectrum, Rec. XI, 908.
- instructions for rearing, Rec. I, 302.
- Japanese, parasite, Rec. III, 414.
- management, Rec. VI, 315.
- Polyphemus, notes, Rec. II, 115.
- sulphur fumes in rearing, Rec. VI, 151.
- varieties of mulberries for, Rec. IV, 783; VI, 64.

(See also SERICULTURE.)

Silo press liquor, analyses, Rec. XII, 823.

Silos—

- account of, Bul. 2, I, 163.
- action of silage juices on cement, Rec. IV, 152.
- and barns, relative cost, Rec. I, 249.
- silage, Rec. VII, 430, 630, 766; VIII, 222, 492; X, 43, 244.
- silo building, Rec. VII, 258.
- changes in, Rec. I, 166; III, 266; VI, 65.
- construction, Bul. 2, II, 76, 96; Rec. I, 47, 87, 140, 165; III, 88, 248, 452; V, 541; IX, 295, 393; X, 196; XII, 296, 495, 797.
- construction and—
 - cost, Bul. 2, II, 96; Rec. III, 88, 251, 452; IV, 147, 150, 151, 153, 154.
 - filling, Rec. II, 270, 317, 337; V, 507; VII, 30; IX, 981.
- decay, Rec. III, 249.
- filling, Rec. I, 48, 87, 140, 165; III, 514; IV, 147, 153; XII, 797.
- lateral pressure in, Bul. 2, II, 28; Rec. IV, 148, 150; VIII, 350.
- lathed and plastered, Rec. III, 249.
- lining, Rec. III, 251.
- location of, Rec. I, 47, 87, 139.
- loss in, Rec. III, 280, 458; V, 52.
- loss of nitrogen in, Rec. III, 267.
- low cost, Rec. IX, 798.
- opening, Rec. I, 166.
- preservation with creosote, Rec. IV, 36.
- round, construction, Rec. IV, 153.
- size, Rec. III, 250.
- special value to Kansas, Rec. I, 47.
- stave, construction, Rec. IX, 981; XI, 294, 599.
- stone and grout, Rec. III, 249.
- underground, Rec. VI, 1029.
- use in Florida, Rec. III, 604.
- value of, Rec. II, 660; III, 28.
- ventilation, Rec. III, 252.
- wood-lined, Rec. III, 248.

Silpha—

- bituberosa*, notes, Rec. VI, 442; X, 866.
- opaca*. (See BEET CARRION BEETLE.)
- spp. affecting sugar beets, Rec. XI, 1057.

Silt, value as a manure, Rec. IX, 333.

Silvanus—

- bicornis*, n. sp., notes, Rec. IX, 853.
cassie, notes, Rec. III, 702; IV, 253; VII, 43.
gossypii, n. sp., notes, Rec. IX, 853.
mercator, n. sp., notes, Rec. IX, 853.
surinamensis. (See GRAIN BEETLE, SAW-TOOTHED.)

Silver—

- fish, notes, Rec. VII, 880; IX, 64.
 oxid for decomposition of hydrogen peroxid, Rec. IX, 25.
 pine tortricid injury to Douglas spruce, Rec. X, 570.
 preparation of Credé for diagnosing glanders, Rec. XI, 495.
 spotted plusia, Rec. IX, 260.
 "Silver" ware, analyses, Rec. XI, 314.
 Silverweed, notes, Rec. VIII, 703.
Silybum marianum, notes, Rec. III, 598; VII, 38.
Simathis nemorana, notes, Rec. XII, 866.
 Simmenthaler cows, notes, Rec. XI, 983.
 Simon plum, notes, Rec. IV, 916.
Simondsia paradoxa—
 in the stomach of wild boars, Rec. IX, 193.
 morphology, Rec. IX, 467.
 notes, Rec. XI, 697.

Simulium—

- ochraceum*. (See BUFFALO GNAT.)
pecuarum. (See BUFFALO GNAT.)
 sp. affecting men and horses, Rec. XII, 664.
 sp., notes, Bul. 2, II, 92.

Sinapis—

- alba*. (See MUSTARD, WHITE.)
arvensis. (See MUSTARD, WILD.)
nigra, notes, Rec. V, 693, 913.
 (See also MUSTARD, BLACK.)
 sp., seed coats, Rec. VI, 196.

Sinapis, notes, Rec. V, 973.*Sinea*—

- diadema*, notes, Rec. XII, 264.
spinipes, notes, Rec. VI, 741.

Sinoxylon—

- declive*, notes, Rec. III, 812.
suturale, notes, Rec. III, 812.

Siphonaptera, studies, Rec. VI, 654, 837.

Siphonophora—

- avenæ*. (See GRAIN APHIS.)
cerealis, notes, Rec. XI, 765.
citrifolii, notes, Rec. V, 409; X, 769.
cucurbitæ, notes, Rec. VIII, 505.
granaria, notes, Rec. VI, 65; XI, 765.
rubi, notes, Rec. IV, 839.

Sirex—

- gigas*, notes, Rec. VII, 882; XI, 168, 562.
juvencus, notes, Rec. XI, 168.

Siris tree or lebbek, notes, Rec. XII, 248.

Sirup—

- adulteration, Rec. III, 814.
 analyses, Rec. III, 814; VII, 992; VIII, 442; X, 281; XI, 510, 705, 770, 883; XII, 79, 107, 108, 279.
 determination of—
 sugar in, Rec. VII, 556.
 water in, Rec. V, 433; XI, 905.
 making—
 experiments, Rec. XI, 292.
 purification of cane juice, VII, 719.
 treatment with ozone, Rec. XII, 195.

Sirups—

- and juices, filtration through asbestos, Rec. V, 349.
 flavoring, analyses, Rec. XII, 280.
 separation, Rec. VI, 344.
 table, preparation, Rec. VIII, 530.

Sisal hemp—

culture in—

- Bahamas, Rec. III, 108; VI, 722.
 Cuba, Rec. III, 108.
 Florida, Rec. III, 108.
 Mexico, Rec. III, 108; X, 246.
 fiber, machinery for preparing, Rec. III, 108.
 notes, Rec. VI, 278.

Sisum, cultivation as a timber tree, Rec. VII, 870.

Sisymbrium—

- altissimum*, notes, Rec. VII, 407, 511, 872; VIII, 410; IX, 143; X, 121.
canescens, notes, Rec. IV, 167.
officinale. (See MUSTARD, HEDGE.)
sinapistrum, notes, Rec. V, 529, 628; VII, 588; VIII, 892.

Sisyrinchium bellum, notes, Rec. III, 598.

Sitanion, notes, Rec. XI, 423.

Sites, residential, and environments, Rec. X, 153.

Sitodrepa panicea—

- food plants, Rec. IV, 373.
 injuring boots and shoes, Rec. IV, 285.
 notes, Rec. VI, 563; VII, 700; IX, 65; X, 62; XI, 472; XII, 468.

Sitones—

- flavesçens*, notes, Rec. III, 222.
lineatus, notes, Rec. VI, 65.

Sitopyrus, notes, Rec. V, 869.

Sitos—

- analyses, Rec. X, 1088.
 digestibility, Rec. X, 1088.

Sitotroga cerealella. (See ANGOUMOIS GRAIN MOTH.)

Skara, Sweden, Chemical and Seed Control Station, reports, Rec. VI, 641; VIII, 1034; IX, 380, 1099; X, 414; XI, 56, 460; XII, 252.

Skeletonizer—

- brown-backed, notes, Rec. XII, 665.
 gray, notes, Rec. XII, 665.

Skim milk—

- addition to whole milk, Rec. X, 90.
 analyses, Bul. 2, I, 191; Bul. 2, II, 44, 105; Rec. II, 582; III, 21, 45, 48, 98, 157, 401; IV, 68, 75, 486; V, 66, 80, 81, 82, 207, 655, 944; X, 791; XI, 883.

and ground oats for calves, Rec. IV, 739; IX, 973.

linseed meal for calves, Rec. IV, 739; V, 68, 634; IX, 973.

peanut oil for calves, Rec. VIII, 720; IX, 874.

potato flour for calves, Rec. X, 482.

starch for calves, Rec. IX, 874; X, 780.

whey, fermentation product, Rec. X, 1097.

artificial products, Rec. VI, 484.

ash constituents, Rec. III, 23.

bread—

- assimilation, Rec. IX, 981.
 digestibility, Rec. VII, 794.

casein—

- in, food value, Rec. XII, 169.
 preparation from, Rec. X, 592.

Skim milk—Continued.

cheese—

centrifugal, fat content, Rec. VI, 484.

analysis, Rec. IV, 945; 988; VI, 85.

manufacture, Rec. IV, 948; VI, 85, 484; VII, 71.

Danish, use, Rec. V, 609.

determination of fat in, Rec. VIII, 932; IX, 589.

digestibility, Rec. X, 880.

fat—

content in deep setting, Rec. VI, 753.

in, Rec. II, 284, 323; IV, 362.

loss in, Rec. III, 21; V, 999, 1053.

fermented, for cows, Rec. XI, 86.

food value, Rec. X, 74; XI, 478.

for calves, Rec. III, 221; IV, 739; V, 68, 602, 634; VI, 453; VII, 321, 425, 523; VIII, 154, 518; IX, 973, 1080; XI, 490; XII, 472, 898.

cheese-making and for feeding, Rec. V, 261.

chickens, Rec. III, 707; IV, 262; X, 677, 698; XI, 277.

colts, Rec. IV, 424.

cows, Rec. IV, 181; VII, 523, 985; VIII, 248, 1032; IX, 382; X, 487; XI, 86.

fattening animals, Rec. V, 439.

lambs, Rec. V, 823; VI, 922,

pigs, Bul. 2, I, 78, 82; Bul. 2, II, 44; Rec. II, 74, 413, 427, 439, 578, 646, 647; III, 131, 155, 156, 392, 478; IV, 68, 512; V, 75, 200, 809; VI, 77, 930; VII, 523, 608; VIII, 78, 423, 716, 919, 920, 922; IX, 375, 870, 871, 971; X, 73, 986; XI, 71, 490, 568, 570, 967; XII, 175, 375, 588, 982.

from colostrum, analysis, Rec. IV, 488.

Swedish creameries, analyses, Rec. XI, 680.

in bread making, Rec. XII, 298, 776.

cooperative creameries, utilization, Rec. V, 261.

keeping quality, Rec. V, 440.

methods of testing, Rec. XI, 1085.

milk sugar from, Rec. V, 562, 605, 1066; VII, 530.

pasteurization, Rec. V, 1033; VIII, 1032; IX, 290, 580; XII, 85.

pasteurized—

germs in, Rec. V, 1049.

keeping qualities, Rec. XII, 1082.

v. raw for calves, Rec. XI, 666; XII, 379.

product, new, Rec. XII, 780.

separator—

for calves, Rec. IV, 739; VI, 453; IX, 973.

pigs, Rec. VIII, 716.

germs in, Rec. V, 1049.

sour v. sweet for pigs, Rec. IV, 484; V, 317, 318; XII, 677.

treatment—

and use, Rec. VIII, 835.

during prevalence of foot-and-mouth disease, Rec. VI, 81.

Trystorp method of feeding, Rec. X, 487.

use as a human food, Rec. V, 258.

utilization, Rec. III, 751; VII, 529; VIII, 554; IX, 297; X, 91.

valuation, Rec. III, 154.

Skim milk—Continued.

v. buttermilk for pigs, Rec. VIII, 1012; IX, 978.

gluten meal for butter production, Rec. III, 86.

grain rations for pigs, Rec. VI, 750.

sour milk for pigs, Rec. VIII, 1009.

water in bread making, Rec. V, 654.

whew for pigs, Rec. X, 74; XI, 71.

whole milk for calves, Bul. 2, I, 109; Rec.

III, 221; V, 68; VI, 468, 922, 923; VIII, 1006; IX, 169; X, 989.

with ground or unground grain for pigs, Rec. IV, 512.

Skimming Cooley cans, Rec. III, 478.

Skin, elimination of water from, Rec. IX, 95.

Skipper, banded, Rec. IX, 260.

Skunk, distribution and use, Rec. X, 25.

Skunks—

new, Rec. IX, 1030.

striped, notes, Rec. II, 258.

"Skutch" from limed pelts, analyses, Rec. XII, 39.

Sky—

blue color, Rec. XI, 129, 222, 323.

in path of eclipse of sun, probable state, Rec. X, 827.

Skylark, notes, Rec. XI, 426.

Skylight—

character, Rec. IX, 424.

color and polarization, Rec. XII, 831.

Slag— (See PHOSPHATIC SLAG.)

calcareous, as a fertilizer, Rec. XII, 530.

Slaughter—

experiments, Rec. V, 349, 439, 548.

experiments—

in Berlin, Germany, Rec. VI, 163, 332, 468; VI, 155, 524; VIII, 157; 427.

with cattle, Rec. VII, 804; VIII, 427.

with pigs, Rec. VII, 337; VIII, 519; IX, 165; XI, 483.

tests—

and quality of meat, Rec. IV, 316.

of sheep and oxen, Rec. V, 238.

Slaughterhouse offal—

analyses, Rec. VIII, 880.

manurial value, Rec. VII, 490.

Slaughterhouses—

and slaughtering, Rec. VIII, 719.

as a factor in the spread of disease, Rec. IX, 591.

cooperative in France, Rec. V, 540.

in Austria, Rec. VIII, 1014.

municipal ownership, Rec. XI, 591.

supervision, Rec. IX, 591.

Sleds—

draft under different conditions, Rec. III, 100.

dyamometer tests, Rec. II, 622.

Slender rush, analyses, Rec. IV, 769, 770.

Slime molds of North America, Rec. XI, 515.

"Slimy" bread, notes, Rec. XI, 565, 882; XII, 280.

Slip records of investigation, notes, Rec. V, 518.

Slippery callalu, analyses, Rec. IX, 129; XI, 249.

Slough grass, analyses, Rec. VI, 403.

Sludge—

analyses, Rec. V, 165; VIII, 485; XI, 1026; XII, 225, 531, 933.

for cotton worm, Rec. II, 318.

Sludge—Continued.

- from sewage precipitation, analyses, **Rec. III**, 162.
- of soap as an insecticide, **Rec. II**, 416.
- sewage, analyses, **Rec. V**, 575.

Sludgite—

- for horn fly, **Rec. V**, 206.
- rose chafer, **Rec. III**, 171.

Slug caterpillars of New York, **Rec. VII**, 699; **IX**, 862.

Slug shot—

- analyses, **Rec. III**, 690; **XII**, 67.
- for cucumber beetle, **Rec. II**, 292.

Slugs—

- and snails, **Rec. X**, 168.
- carnivorous, **Rec. IX**, 574.
- field, notes, **Rec. XII**, 1063.
- remedies, **Rec. XI**, 658.

Small grains—

- after-ripening of, **Rec. XI**, 1054.
- and roots, field experiments, **Rec. VIII**, 885.

Smallpox of potatoes, **Rec. XI**, 948.Smart, J. H., services to agricultural education, **Rec. XI**, 1001.

Smartweed—

- notes, **Rec. V**, 399.
- purple, notes, **Rec. X**, 1048.
- root system, **Rec. IV**, 46.

Smerinthus—

- geminatus*, notes, **Rec. IV**, 354.
- ocellatus*, notes, **Rec. XI**, 767; **XII**, 271.

Smilacæ of North and Central America, **Rec. VI**, 388.*Smilax hispida*, notes, **Rec. III**, 521.*Smilia miscella*, parasitic on San José scale, **Rec. X**, 1064.*Smodicum cucujiforme*, notes, **Rec. X**, 168.

Smoke—

- and fumes, invisible injury by, **Rec. XI**, 910.
- bush, notes, **Rec. IV**, 656.
- effect on—
 - plants, **Rec. IX**, 727; **XII**, 826.
 - tuberculosis bacilli in meat, **Rec. X**, 597.
- from factory chimneys, effect on agriculture, **Rec. VII**, 813.
- injuries by, **Rec. VIII**, 412.
- injuring—
 - firs, **Rec. VIII**, 891.
 - plants, **Rec. VIII**, 240.

Smut— (*See also* BARLEY, CORN, OATS, RYE, WHEAT.)

- and bunt, **Rec. VIII**, 607.
- as cause of contagious abortion, **Rec. XI**, 495.
- destroyer, analyses, **Rec. II**, 315.
- diseases, **Rec. XII**, 359.
- diseases—
 - investigations, **Rec. II**, 749.
 - notes, **Rec. II**, 33, 303.
- fungi, studies, **Rec. II**, 749; **VII**, 512, 656, 964.
- fungus, notes, **Rec. V**, 409.
- grass—
 - analyses, **Bul. 2, I**, 181.
 - digestibility, **Bul. 2, I**, 181.
- new on *Panicum crus-galli*, **Rec. VIII**, 141.
- species of Australia, **Rec. V**, 438.

Smut—Continued.

spores—

- germination as affected by formaldehyde, **Rec. XII**, 457.
- germinative power, **Rec. X**, 561.
- injury to animals, **Rec. XI**, 91.

Smuts—

- and rusts of Nebraska, **Rec. I**, 253.
- hot water for, **Rec. II**, 342, 639, 740.
- in Belgium, **Rec. XII**, 572.
- investigations, **Rec. VIII**, 62.
- natural enemies, **Rec. II**, 133, 343.
- nuclear phenomena, **Rec. XII**, 827.
- of cereals—
 - cause and prevention, **Rec. X**, 154.
 - notes, **Rec. II**, 220, 325, 740; **III**, 172; **V**, 348; **VIII**, 996; **IX**, 761, 1051; **X**, 653; **XI**, 361, 817; **XII**, 255, 359.
- seed treatment for, **Rec. IX**, 62, 453.
- seed treatment, machine for, **Rec. XII**, 658.
- sulphate of copper for, **Rec. II**, 740.
- treatment, **Rec. II**, 33, 221, 325, 342, 637, 639, 740; **IV**, 50, 251, 341, 352, 415, 729; **V**, 59, 61, 308, 685, 1072; **VI**, 309, 1000; **VII**, 225, 512, 591, 787, 964; **VIII**, 268, 318, 898; **IX**, 569; **X**, 361, 559; **XII**, 461, 768, 858, 898.

Smyntaurus—

- albamaculata*, remedies, **Rec. IX**, 860.
- fusca*, notes, **Rec. XI**, 766.
- sp., notes, **Rec. VI**, 235; **VIII**, 911.

Smynturus, remedies, **Rec. XII**, 468.

Snail—

- breeding, **Rec. V**, 435.
- garden, **Rec. IX**, 230.

Snails—

- affecting hops, **Rec. XI**, 476.
- spread of fungi by, **Rec. VIII**, 240.

Snakes—

- as enemies of the locust, **Bul. 2, II**, 93.
- poisonous, of North America, **Rec. VII**, 471.

Snapdragon—

- anthracnose, notes, **Rec. XII**, 964, 1055.
- stem rot, notes, **Rec. XII**, 964, 1055.

(*See also* TOAD FLAX.)

Sneezeweed—

- notes, **Rec. X**, 516.
- root system, **Rec. IV**, 46.

Snip-snap grass—

- analyses, **Rec. II**, 437.
- notes, **Rec. II**, 487.

Snout beetle—

- imbricated, **Rec. VIII**, 504; **IX**, 463; **XI**, 364; **XII**, 362.
- notes, **Bul. 2, I**, 99; **Rec. I**, 291; **II**, 292.
- undetermined species, **Rec. IV**, 285.

Snout beetles—

- in Maine, **Rec. VI**, 740.
- new group, **Rec. XI**, 767.

Snow—

- ammonia in, **Rec. III**, 82.
- and rain gauge, Marvin's, **Rec. XI**, 127.
- charts of Austria, 1894-95, **Rec. VI**, 879.
- covering, influence on soil and climate, **Rec. VI**, 878.
- crystals, micro-photographs, **Rec. XII**, 1015.
- distribution, **Rec. X**, 1018.

Snow—Continued.

- dust, examination, *Rec. VII*, 474.
- February, 1895, *Rec. VI*, 875.
- flea, notes, *Rec. VII*, 880.
- fly, *Rec. IX*, 152.
- in river basins of Russia, *Rec. X*, 327.
- influence on soil and climate, *Rec. V*, 730.
- insects appearing on, *Rec. IV*, 84.
- measurements, *Rec. XI*, 127.
- melting, *Rec. IX*, 424.
- nitrates in, *Rec. III*, 82.
- penetration by bullets, *Rec. VIII*, 111.
- preservation as affected by forests, *Rec. XII*, 295.
- rollers, *Rec. VIII*, 111; *X*, 124; *XI*, 222.
- temperatures, *Rec. XI*, 222.
- "tornadoes," *Rec. XI*, 430.
- "Snow modern barn," tobacco curing process, *Rec. III*, 709, 776; *IV*, 32.
- Snowball, notes, *Rec. III*, 788; *IV*, 656; *V*, 991.
- Snowberry, notes, *Rec. III*, 522; *IV*, 656.
- Snowdrop disease—
 - notes, *Rec. VIII*, 507.
 - treatment, *Rec. IX*, 457.
- Snowfall—
 - and forests, *Rec. XI*, 221.
 - sunshine, *Rec. X*, 124, 327.
 - in Colorado, *Rec. IX*, 414.
 - Rocky Mountains, *Rec. XII*, 118.
 - of 1895-96, *Rec. VIII*, 475.
- Snow-on-the-mountain, notes, *Rec. X*, 516; *XI*, 354.
- Snowstorms in South Dakota, *Rec. IX*, 30.
- Snowy tree-cricket—
 - notes, *Rec. II*, 420; *IV*, 839; *V*, 498; *X*, 164; *XII*, 664.
 - remedies, *Rec. I*, 138.
- Snuff for animal parasites, *Rec. V*, 517.
- Soap—
 - and tobacco, preparation and use, *Rec. V*, 206.
 - arsenical, for preserving museum specimens, *Rec. XII*, 617.
 - as a disinfectant, *Rec. X*, 795; *XI*, 998.
 - an insecticide, *Rec. IV*, 932.
 - boiler's "potash," analyses, *Rec. X*, 230.
 - bush, notes, *Rec. VII*, 656.
 - determination of—
 - resin in, *Rec. V*, 253.
 - water and fatty matter in, *Rec. IV*, 314.
 - examination, *Rec. V*, 474.
 - factory refuse, analyses, *Rec. IV*, 903.
 - for cabbage caterpillars, *Rec. IV*, 865.
 - embedding plant tissues, *Rec. X*, 321.
 - potato blight, *Rec. V*, 988.
 - milk, from by-products of the dairy, *Rec. V*, 1067.
 - mixture and copper fungicides, combination, *Rec. XI*, 1060.
 - powdered, as a cause of death among swilled pigs, *Rec. IX*, 1090; *X*, 694.
 - solution—
 - as an insecticide, *Rec. XII*, 578.
 - for determining hardness of water, *Rec. IV*, 612.
 - works, refuse, analyses, *Rec. VIII*, 41; *IX*, 919.

Soaps—

- disinfectant, *Rec. XII*, 599.
- insecticide, preparation, *Rec. IX*, 662.
- Soapsuds for cabbage lice, *Rec. IV*, 171.
- Socialism and agriculture in France, *Rec. VI*, 849; *VII*, 73.
- Society—
 - for Plant Morphology and Physiology, convention, *Rec. X*, 824.
 - Rational Feeding of Farm Animals, convention, *Rec. X*, 1089.
 - the Promotion of Agricultural Science, meeting, *Rec. XI*, 1099.
 - of Public Analysts, meeting, *Rec. IV*, 613.
- Sociology and irrigation, *Rec. XI*, 195.
- Sod webworm, notes, *Rec. I*, 45; *VI*, 313, 314.
- Soda—
 - and potash, determination, *Rec. V*, 126.
 - arsenic-lime mixture for codling moth, *Rec. IX*, 262.
 - ash, analyses, *Rec. IX*, 919.
 - formation in nature, *Rec. VII*, 834.
 - hyposulphite for apple scab, *Bul. 2*, 1, 146.
 - lime for determining carbon dioxide, *Rec. XI*, 213.
 - natural, formation, *Rec. VIII*, 574.
 - salts, application, *Rec. VI*, 631.
 - substitution for potash, *Rec. IX*, 933; *XI*, 35, 915.
 - to aid creaming of milk, *Rec. III*, 478.
 - value as a fertilizer, *Rec. XI*, 914.
- v. potash—
 - as a fertilizer, *Rec. VI*, 521; *VII*, 380, 849; *VIII*, 579; *X*, 738, 938.
 - in plants, *Rec. XI*, 35.
- water—
 - analyses, *Rec. XII*, 280.
 - sirup, analyses, *Rec. XII*, 279.
 - sirups, examination, *Rec. XI*, 970.
- Sodium—
 - acetate, reaction, *Rec. IV*, 516.
 - amount in oats, *Rec. III*, 554.
 - arsenite for destruction of prickly pear, *Rec. V*, 354.
 - as a plant nutrient, *Rec. III*, 554.
 - bicarbonate—
 - detection in milk, *Rec. VIII*, 562.
 - determination in milk, *Rec. VIII*, 562.
 - for oat smut, *Rec. II*, 639.
 - formation, *Rec. VIII*, 285.
 - bisulphate for preservation of manure, *Rec. X*, 133.
 - carbonate—
 - absorptive power of soils for, *Rec. VI*, 122.
 - analyses, *Rec. VII*, 854; *X*, 919; *XI*, 917; *XII*, 717, 907.
 - effects on animal body, *Rec. XI*, 962.
 - for carnation rust, *Rec. X*, 453.
 - spraying potatoes, *Rec. VII*, 307.
 - wheat smut, *Rec. II*, 221.
 - in milk, *Rec. XII*, 908.
 - chlorate, effect on cleavage of protein, *Rec. XI*, 483.
 - chlorid—
 - effect on lime resources of the soil, *Rec. IX*, 339.

Sodium—Continued.

chlorid—continued.

in plants, Rec. III, 578, 635.

solutions, measurement of osmotic pressure, Rec. XI, 419.

citrate, effect on digestion, Rec. IV, 449.

cobaltinitrite, reagent for potassium, Rec. XII, 516.

compounds, poisonous effect on wheat, Rec. XII, 717.

determination, Rec. IX, 620; XI, 417.

dioxid—

for purifying air, Rec. XII, 731.

in studying the respiratory function, Rec. XI, 79.

fluorid as a milk preservative, Rec. II, 331; V, 737.

hydrate, normal preservation, Rec. XII, 908.

hyposulphite—

for brown rot of stone fruits, Rec. III, 860.

oat smut, Rec. II, 639.

wheat smut, Rec. II, 221.

solution, preparation, Rec. V, 461.

with lime as a fungicide, Rec. II, 221.

light, new burner, Rec. VII, 18.

nitrate. (See NITRATE OF SODA.)

oxalate for standardizing solutions, Rec. XI, 22.

perchlorate—

effect on plants, Rec. XII, 824.

in nitrate of soda, determination, Rec. VIII, 859, 860; X, 410, 716; XI, 110, 505, 528; XII, 308, 510.

peroxid in water analysis, Rec. V, 344.

phosphate, effect on digestion of food ingredients, Rec. IV, 449.

rôle in plants, Rec. XI, 513.

salts—

acid, effect on *Lupinus albus*, Rec. XI, 1100.

effect on evaporation from soils, Rec. XII, 524.

effect on germination of seeds, Rec. V, 882.

toxic effect on lupines, Rec. XII, 1010.

sulphate—

analyses, Rec. VI, 287.

effect on plants, Rec. IX, 622.

for wheat smut, Rec. II, 221.

reduction, cause, Rec. VI, 969.

sulphite for purification of sugar-beet juice, Rec. V, 349.

sulphid for apple scab, Rec. II, 660.

volumetric determination, Rec. X, 117.

Soft—

brome, germination tests, Rec. VI, 429.

coal ashes, analyses, Rec. VIII, 117.

maple, notes, Rec. II, 741; IV, 654, 829.

phosphate, analyses, Rec. VI, 401; VII, 295.

Soil—

air as affected by plant cover, Rec. VIII, 570.

analysis—

as a means of determining potash requirements, Rec. X, 335.

related to fertilizer experiments, Rec. V, 346; VI, 391, 705; VII, 752.

chemical, Rec. IV, 448.

cost of, Rec. V, 562.

Soil—Continued.

analysis—continued.

development and relation to agriculture, Rec. X, 831.

digestion flask for, Rec. VI, 689.

elutriation apparatus, Rec. V, 562, 924.

elutriation operation, Bul. 2, I, 138.

elutriation process, Rec. VIII, 574, 966.

explanation of terms, Rec. V, 1002.

German methods, Rec. II, 524.

mechanical methods, Rec. VIII, 574; XI, 523; XII, 123.

methods, Rec. III, 301, 632; IV, 399, 982; V, 474, 510, 556, 562, 702; VI, 1022; VII, 752, 753; XII, 905, 1006.

methods, for citric acid extracts, Rec. XI, 508.

methods, in France, Rec. XI, 112.

objects and methods, Rec. X, 129.

progress in, Rec. VII, 178.

utilization, Rec. XII, 319.

value, Rec. II, 272; V, 730, 819, 1029; IX, 538; X, 933.

vegetation experiments in, Rec. IX, 820.

vessel for acid digestion, Rec. V, 511.

and air of forests, hygienic significance, Rec. IV, 876.

rain effect on forage plants, Rec. XI, 32.

water supply of hill countries, conservation, Rec. VIII, 872.

atmosphere, function of carbonic acid in, Rec. V, 539.

bacillus resembling *Bacillus megatherium*, Rec. XI, 715.

bacteria—

as affected by atmospheric agents, Rec. X, 934.

chemical functions, Rec. XII, 729.

descriptions, Rec. XII, 721.

distribution, Rec. XI, 218.

effect on growth of typhus bacilli, Rec. XI, 393.

in, Rec. IX, 229.

liberating nitrogen, Rec. X, 620.

reduction of nitrates by, Rec. XII, 729, 730.

relation to agriculture, Rec. X, 334; XI, 435.

studies, Rec. XI, 218, 827, 917, 1099.

bacterial life, Rec. X, 532.

(See also SOILS, ORGANISMS.)

between rows of castor beans, ash analyses, Rec. XI, 277.

binders, grasses for, Rec. VII, 492.

charts—

geological-agronomics, Rec. XII, 1023.

in the study of soils, Rec. VI, 794.

of Ferte-sous-Jouarre, France, Rec. VI, 23.

preparation, Rec. VII, 486.

conditions, influence, Rec. V, 434; IX, 335.

constituents—

as affected by plant cover, Rec. VIII, 570.

affected by temperature, Rec. VIII, 964; IX, 734.

heat capacity, Rec. IV, 200.

definition, Rec. V, 569.

Soil—Continued.

- deposits, analyses, Rec. VII, 294.
- experiments with—
 - commercial fertilizers, Rec. V, 575.
 - fertilizers on corn, Rec. V, 574.
 - fertilizers on cotton, Rec. V, 976.
 - humates, Rec. X, 333.
- extraction, oxalic acid in, Rec. VI, 792.
- features in plat work, Rec. III, 813.
- ferments—
 - aerobic, Rec. IV, 537.
 - dissemination, Rec. XI, 227.
 - important in agriculture, Rec. VIII, 755.
 - oxidation of ammonia, Rec. XI, 212.
- fertilizers and ferments of, Rec. VII, 489.
- from Indian burial ground, analyses, Rec. X, 235.
- grains—
 - determination of effective diameter, Rec. XI, 524.
 - importance in determining rate of flow of liquids, Rec. XI, 518.
- hygrometer, description, Bul. 2, I, 153.
- inoculation, Rec. V, 548, 843, 924; VI, 200, 294; VII, 23, 372; VIII, 469; IX, 335, 624; X, 119, 135, 532, 825; XI, 816.
- inoculation—
 - diffusibility of bacteria, Rec. IV, 315, 377.
 - experiments, Rec. III, 491; V, 113, 619, 1013; VI, 395; IX, 743; X, 731, 837; XI, 318, 908; XII, 218, 843.
 - for lupines, Rec. III, 499, 553; V, 619, 620, 1013; VI, 534; VII, 23; X, 1012; XII, 548.
 - serradella, Rec. III, 499; IV, 782; V, 620.
 - soy beans, Rec. X, 119; XII, 312, 333;
 - vetches, Rec. III, 499; IV, 782; X, 837; XII, 745, 843.
 - of moors, Rec. V, 649.
 - preparation for, Rec. IX, 120.
 - with Alinit. (See ALINIT.)
 - Nitragin, Rec. VIII, 865, 866; IX, 119, 327, 329, 526, 899, 956, 1028; X, 135, 547, 627, 722, 731, 824, 837, 845, 926, 1012, 1013; XI, 25, 26, 218, 318, 515, 516, 711, 816, 908; XII, 220, 352, 518, 532, 537, 745.
 - Nitragin, increase of efficiency, Rec. XI, 318.
 - Nitragin, review, Rec. IX, 899, 1028; X, 613; XI, 424.
- investigations, Rec. IV, 120; IX, 232.
- investigations—
 - for sugar cane, Rec. VI, 295.
 - in connection with field experiments, Rec. VII, 261.
 - the United States, Rec. XII, 426.
 - methods, Rec. III, 665.
 - methods at Gembloux, Rec. V, 556.
 - need of experts, Rec. VI, 759.
- maps, best method of making, Rec. V, 1029.
- mesa, analyses, Rec. III, 846.
- moisture. (See also SOILS, WATER CONTENT.)
- moisture, Rec. VII, 753; X, 999.
- moisture and fertility, effect on development of oats, Rec. X, 737.

Soil—Continued.

- moisture as affected by—
 - depth of cultivation, Rec. VIII, 301.
 - different crops, Rec. X, 539; XI, 130.
 - fall plowing, Rec. VII, 377.
 - forests, Rec. XII, 426.
 - local factors, Rec. VII, 179.
 - mulches, Bul. 2, I, 149; Rec. VI, 859; XI, 522, 649.
 - plowing, Rec. XII, 898.
 - potash salts, Rec. VI, 61, 623.
 - potassium nitrate, Rec. VII, 567.
 - salts, Rec. XI, 716; XII, 298.
 - subsoiling, Rec. VII, 190; IX, 534.
 - subsurface packing, Rec. XII, 628.
 - temperature, Rec. VII, 99; VIII, 36.
 - tillage, Bul. 2, I, 55, 149; Rec. II, 494; IV, 122; IX, 735; X, 424, 730, 739; XI, 40, 127, 130, 520, 625; XII, 31, 123, 320, 627.
 - watering, Rec. XI, 649.
 - weather, Rec. VI, 860.
 - weeding, Rec. XII, 123.
 - weeds, Rec. XII, 627.
- moisture—
 - at different depths, Rec. X, 28.
 - conservation, Rec. VI, 21, 706; VII, 23, 289, 753, 847; VIII, 386, 477; IX, 335, 928, 932; X, 523, 617; XI, 432, 916; XII, 629, 694, 918, 1024.
 - determination, Bul. 2, II, 139; Rec. III, 316; VI, 119, 515; IX, 1038; X, 330; XI, 325, 625; XII, 29, 426, 848, 921.
 - determination by electrical method, Rec. III, 316; IX, 535; X, 30.
 - effect on development of flax, Rec. IX, 819.
 - effect on plant growth, Rec. V, 522; VII, 19; VIII, 386, 477; IX, 940.
 - effect on stems and leaves, Rec. IV, 315.
 - effect on vegetation, Rec. VI, 869.
 - influence of barnyard manure, Rec. V, 483; VII, 566; XII, 628.
 - influence of plant cover, Rec. VI, 124, 198, 859.
 - in pine forest, Rec. XII, 525.
 - relation to crops and climatic conditions, Rec. XI, 129.
 - Russian soils, Rec. XII, 527.
 - investigations, Rec. VII, 753; IX, 429, 630; XI, 498; XII, 425.
 - mechanics, Rec. IX, 732.
 - observations, Rec. X, 620; XI, 228, 622, 823; XII, 28, 40, 946.
 - variations, Rec. X, 229.
- organisms, Rec. IV, 248; V, 436, 730; VI, 200.
- organisms assimilating nitrogen, Rec. VI, 200; VII, 278.
- particles—
 - arrangement, Rec. VI, 764.
 - determination of number and surface area, Rec. IV, 517.
 - number per gram, Rec. IV, 20.
 - size and form, Rec. VI, 761, 762; VII, 476.
- physics—
 - as related to crop production, Rec. IV, 371.
 - investigations, Rec. VI, 790.
 - relation of tillage to, Rec. II, 269.

Soil—Continued.

- samples, volumenometer for, *Rec. IV*, 782.
- survey, *Rec. III*, 861; *IV*, 244.
- survey—
 - in Connecticut Valley, *Rec. XII*, 522.
 - North Carolina, *Rec. XII*, 924.
 - Pecos Valley, New Mexico, *Rec. XII*, 522.
 - Salt Lake Valley, Utah, *Rec. XII*, 522.
- method of making, *Rec. XI*, 623.
- taxation, *Rec. VII*, 486.
- temperature as affected by—
 - depth of cultivation, *Rec. VIII*, 302.
 - forests, *Rec. X*, 442.
 - manuring, *Rec. VIII*, 299.
 - moisture, *Rec. VII*, 99; *VIII*, 36.
 - salt content, *Rec. IX*, 735.
 - watering, *Rec. XI*, 649.
- temperature—
 - determination by electrical method, *Rec. IX*, 535; *X*, 30.
 - influence of plant cover, *Rec. VI*, 124, 198.
 - surface, *Rec. IX*, 232, 433.
- temperatures, *Bul. 2, I*, 34; *Bul. 2, II*, 139; *Rec. I*, 95, 102, 123, 184, 188; *II*, 195, 240, 395, 494, 653; *III*, 84, 128, 317, 396, 405, 412, 464, 799; *IV*, 129, 245, 335, 405, 448, 533, 803; *V*, 33, 860; *VI*, 23, 123, 124, 703, 978; *VII*, 290, 938; *VIII*, 36, 573, 756; *IX*, 819, 1041; *X*, 130, 229, 616, 1030, 1031; *XI*, 228, 325, 434, 823, 1022; *XII*, 36, 222, 320, 918, 927.
- temperatures—
 - as affected by coverings, *Rec. X*, 424.
 - affected by height above sea-level, *Rec. IV*, 614.
 - affected by mulching and watering, *Rec. XI*, 649.
 - affected by temperature of water applied, *Rec. XI*, 541.
 - at different depths, *Rec. II*, 475; *XI*, 819.
 - during a hot wave, *Rec. XII*, 622.
 - effect on growth of plants, *Rec. V*, 114.
 - in Argentine Republic, *Rec. VI*, 880.
 - Canada, *Rec. VI*, 394; *XII*, 318.
 - India, *Rec. VI*, 881.
 - Italy, *Rec. X*, 130.
 - Mexico, *Rec. VI*, 623.
 - Norway, *Rec. VI*, 199; *IX*, 818; *X*, 618.
 - Sweden, *Rec. X*, 424.
- on drained and undrained lands, *Rec. II*, 474.
- tests, *Rec. X*, 711; *XI*, 529; *XII*, 227, 623, 1028.
- tests—
 - by color of plant foliage, *Rec. V*, 933.
 - in Virginia, *Rec. VI*, 712, 944.
 - method, *Rec. XI*, 1023.
 - of uniformity and productiveness, *Bul. 2, II*, 73.
 - reliability, *Rec. XI*, 914.
 - value, *Rec. VII*, 851; *VIII*, 571.
 - with a given plant, value, *Rec. IX*, 936.
 - beets, clover, and grasses, *Rec. X*, 938.
 - corn, *Rec. X*, 626.
 - fertilizers, *Bul. 2, II*, 148; *Rec. I*, 128; *II*, 9, 123, 223, 352, 710, 716; *III*, 164, 866, *VIII*, 298, 398; *IX*, 747, 826; *X*, 27.

Soil—Continued.

- tests—continued.
 - with oats, *Rec. XI*, 836.
 - plants and fertilizers, *Rec. X*, 937.
- thermometer, new form, *Rec. III*, 317.
- thermometers, *Rec. IV*, 710.
- transformation of nitrates, *Rec. XI*, 331.
- treatment, *Rec. X*, 731.
- treatment—
 - for "drop" of lettuce, *Rec. IX*, 325; *X*, 648; *XI*, 552.
 - fungus diseases, *Rec. VII*, 179, 309, 587.
 - of orchards for drought, *Rec. VI*, 902.
 - wastes in the cane field, *Rec. VIII*, 596.
- Soiling—
 - and dry feed *v.* pasturage for sheep, *Rec. V*, 74.
 - soiling crops, *Rec. IX*, 88.
 - crop, green vetch and oats as, *Rec. V*, 1065.
- crops—
 - analyses, *Rec. IV*, 48.
 - and pasturage compared, *Bul. 2, II*, 131.
 - culture, *Rec. IV*, 29, 479, 724.
 - digestibility, *Bul. 2, II*, 128; *Rec. III*, 455.
 - for cows, *Rec. II*, 574; *III*, 152; *IV*, 64, 480; *V*, 197; *VIII*, 429; *X*, 295, 483; *XI*, 587, 783; *XII*, 382, 384, 388.
 - yield, *Rec. III*, 456.
 - yield and nutritive value, *Bul. 2, II*, 129.
- experiments with—
 - cows, *Rec. III*, 131, 453, 784; *IV*, 65, 480; *V*, 599, 992; *VI*, 1013.
 - lambs, *Rec. II*, 437.
 - leguminous and cereal crops, *Rec. VIII*, 429.
 - steers, *Rec. IV*, 355.
- Hungarian grass for, *Rec. IV*, 480.
- system for cows, *Bul. 2, II*, 124; *III*, 453.
- treatise, *Rec. XII*, 496.
- v.* green manuring, *Rec. V*, 346.
- green manuring with pea vines, *Rec. V*, 175.
- v.* pasturage for—
 - cows, *Bul. 2, II*, 131; *Rec. III*, 456, 784; *XII*, 783.
 - steers, *Rec. VI*, 319.
- Soils—
 - absorption, effect of ferric oxid, *Rec. III*, 316.
 - absorption of ammonia by, *Rec. III*, 110.
 - absorptive power, *Rec. II*, 634; *IV*, 388.
 - absorptive power—
 - and hygroscopicity, *Rec. IV*, 222, 433.
 - as affected by fertilizers, *Rec. VII*, 938.
 - for aqueous vapor, *Rec. VII*, 481.
 - fertilizers, *Rec. VI*, 120.
 - iron sulphate, *Rec. VI*, 121.
 - phosphoric acid, *Rec. II*, 635.
 - potassium chlorid, *Rec. VI*, 121.
 - method of determining, *Rec. II*, 634.
 - acid—
 - as affected by lime, *Rec. VIII*, 584; *IX*, 935, 939.
 - digestion, vessels for, *Rec. V*, 511.
 - liming, *Rec. X*, 425, 939; *XI*, 915; *XII*, 630.
 - acidity, *Rec. XI*, 1003; *XII*, 906.
 - acidity, effect on plant growth, *Rec. X*, 117, 128.

Soils—Continued.

- acidity of upland soils, Rec. VIII, 533, 679; XII, 927.
- action of iron oxid, Rec. IV, 614.
- adhering to beets, analyses, Rec. VIII, 114.
- adhesion, Rec. VI, 769.
- aeration, Rec. VIII, 480; XI, 526.
- aeration, effect on plant growth, Rec. VII, 664.
- agricultural—
 - solubility of fertilizing materials, Rec. VIII, 114.
 - valuation, Rec. V, 418, 1098; X, 1031.
- alkali— (*See also* ALKALI.)
 - and waters in California, Rec. III, 328.
 - analyses, Rec. IV, 120, 714, 950; X, 226; XI, 823; XII, 924, 1021.
 - analyses of leachings, Rec. XII, 907.
 - crops for, Rec. IV, 950; X, 222; XI, 397, 423; XII, 538.
 - culture of sugar beets on, Rec. VIII, 683; IX, 1048; X, 743; XI, 296; XII, 538.
 - determination of salt content, Rec. XII, 320.
 - distribution, Rec. IV, 281.
 - effect on wheat, Rec. VI, 984.
 - forage plants for, Rec. XI, 423.
 - formation, Rec. IV, 282.
 - growth of trees, shrubs, and plants on, Rec. VIII, 697.
 - gypsum for, Rec. IV, 120; V, 351, 569; VI, 791; XII, 946.
 - improvement, Rec. VI, 124.
 - investigations, Rec. XII, 221.
 - methods of mechanical analysis, Rec. XII, 524.
 - native vegetation, Rec. X, 220.
 - notes, Rec. XI, 133.
 - of California, Rec. IV, 120.
 - Canada, analyses, Rec. VI, 392.
 - India, Rec. IV, 120.
 - Montana, Rec. XI, 223.
 - Texas, Rec. IV, 714.
 - origin, value, and reclamation, Rec. VIII, 756.
 - reclamation, Rec. I, 189; IV, 120, 282, 714; V, 351, 569, 1029; VI, 791; IX, 429; X, 235, 333; XII, 946.
 - reclamation in Egypt, Rec. XII, 621.
 - salts in, Rec. VII, 173, 568, 753; VIII, 537, 574, 677, 966.
 - sampling, Rec. IX, 1041.
 - soluble salts in, Rec. VI, 791.
 - sources and composition, Rec. IV, 120.
- alluvial, Rec. X, 330.
- ammoniacal fermentation, Rec. IV, 860; V, 614.
- analyses, Bul. 2, I, 22, 54, 64, 138, 173, 187; Rec. I, 4, 80, 102, 198; II, 5, 12, 13, 114, 349, 514, 588, 610, 658; III, 30, 315, 357, 362, 590, 624; IV, 24, 244, 278, 433, 449, 464, 710, 713, 714, 719, 821, 850, 875, 912; V, 159, 285, 286, 557, 569, 742, 825, 857, 902; VI, 110, 137, 272, 274, 283, 392; VII, 99, 487, 664, 835; VIII, 481, 537, 679; IX, 939; X, 229, 315, 420, 421, 525, 729, 828; XI, 133, 224, 226, 228, 314, 328, 526, 528, 538, 718, 823, 824, 826, 827, 840, 842, 916, 1018, 1026; XII, 122, 126, 127, 222, 225, 441, 527, 627, 823, 907, 933.

Soils—Continued.

- and air as related to agriculture, Rec. IV, 129.
- and ash, methods of analysis, Rec. IV, 118; VI, 182, 377, 757.
- and climate—
 - as affected by snow covering, Rec. V, 730; VI, 878.
 - of Iowa, relation to horticulture, Rec. VI, 993.
 - relations, Rec. IV, 276; VI, 794.
- and crops, Rec. XII, 118.
- crops as affected by fertilizers, Rec. X, 245.
- crops, chemistry, Rec. X, 348.
- fertilizers, Rec. V, 1070; X, 1031.
- fertilizers, rôle of organic material in, Rec. VI, 521.
- peat, nitrogenous compounds, Rec. X, 1031.
- and subsoils of—
 - Alabama, analyses, Rec. I, 7.
 - Florida, analyses, Rec. I, 25.
- and their properties, Rec. VII, 486.
- arable—
 - determination of lime in, Rec. VIII, 113.
 - drainage waters, Rec. VII, 99.
 - fertilizer requirements, Rec. VII, 664.
 - nitrification, Rec. IX, 334.
 - nitrogenous compounds exhaled by, Rec. III, 118.
 - of Aisne, France, Rec. V, 902.
 - sulphur compounds in, Rec. III, 637, 655.
- arid—
 - analyses, Rec. VI, 729.
 - character, Rec. IV, 277.
 - fertilizer requirements, Rec. XII, 427.
 - physical and chemical peculiarities, Rec. XI, 717.
- artificial, changes of physical properties, Rec. XI, 604.
- as affected by—
 - alkali, Rec. VIII, 568.
 - atmospheric precipitation, Rec. VIII, 676; IX, 427; X, 125.
 - climate, Rec. IV, 871.
 - cultivation, Rec. V, 484, 1098; XI, 32.
 - forest clearing and cultivation, Rec. XI, 127.
 - frost, Rec. X, 832.
 - lime, Rec. VI, 130, 898; VII, 377, 378; X, 228, 335, 427.
 - mineral salts, Rec. IX, 237.
 - phosphatic fertilizers, Rec. IX, 821.
 - salt water, Rec. XI, 326.
 - shading, Rec. VIII, 676, 756.
 - sterilized human excrement, Rec. IX, 35, 740.
 - sulphate of ammonia, Rec. VIII, 571; IX, 937.
 - sulphuric anhydrid, Rec. VII, 664.
- as related to plant growth, Rec. III, 316
- available—
 - phosphoric acid in, Rec. V, 471, 539.
 - potash and phosphoric acid in, Rec. VIII, 113.
- availability of plant food, Rec. VI, 706.

Soils—Continued.

bare—

and uncultivated, growth of pine in, *Rec. V*, 653.

drainage water, *Rec. IV*, 295.

sulphate of iron *v.* sulphate of lime for conserving nitrogen in, *Rec. III*, 750, 917.

barium in, *Rec. XI*, 619.

behavior—

of hippuric acid in, *Rec. VII*, 662.

toward water, *Rec. VI*, 23, 853.

black, humus—

improvement, *Rec. VIII*, 34.

in, *Rec. V*, 559.

bluff, *Rec. X*, 330.

calcareous—

chlorosis, *Rec. VI*, 233.

efflorescence, *Rec. X*, 831.

of Monferrato, analyses, *Rec. XII*, 318.

renovation, *Rec. VII*, 848.

use of ammoniacal fertilizers, *Rec. XI*, 330.

calculation of fertilizing constituents, *Rec. VI*, 120.

capillary rise of water, *Rec. X*, 228.

care and culture, *Rec. XII*, 698.

catalogue of samples, *Rec. XII*, 36.

catch crops for conserving nitrogen of, *Rec. V*, 15.

chalk, effect of potash on, *Rec. V*, 708.

change, for wheat, *Rec. VI*, 268; *VII*, 394; *VIII*, 489.

changes in, *Rec. IV*, 277.

changes in volume, *Rec. VI*, 768; *IX*, 433.

character, effect on growth of plants, *Rec. III*, 927.

chemical—

analysis and agricultural value, *Rec. VII*, 190, 752, 932.

and physical investigations, *Rec. V*, 562, 741, 825; *VII*, 486.

examination, importance in taxing land, *Rec. VIII*, 872.

nature, *Rec. IV*, 23.

chemistry, *Rec. XI*, 418.

circulation of air and water in, *Rec. VI*, 703; *VII*, 23, 290, 664.

classification, *Rec. IV*, 248; *VI*, 119.

clay—

as affected by application of lime, *Rec. III*, 581.

fertilizer experiments on, *Rec. X*, 275; *XII*, 1008.

liming, *Rec. IV*, 222, 315, 435; *IX*, 1043.

porosity as affected by liming, *Rec. IV*, 377.

salt in, *Rec. V*, 346.

cohesion, *Rec. IV*, 529; *VI*, 769.

color, *Rec. VI*, 772.

composition as related to color of daffodils, *Rec. XI*, 319.

condensation of water vapor, *Rec. XII*, 526.

constitution, *Rec. VIII*, 114.

copper compounds in, *Rec. VII*, 99, 189, 486.

crop production. (*See SOILS, FERTILITY.*)

Soils—Continued.

cultivated—

and uncultivated, of Minnesota, *Rec. V*, 832.

determination of assimilable phosphoric acid in, *Rec. XII*, 907.

determination of available phosphoric acid, *Rec. XI*, 508.

drainage waters of, *Rec. III*, 492; *IV*, 614, 682; *V*, 730, 804; *VI*, 977; *VII*, 99.

effect of frost on, *Rec. X*, 832.

loss of plant food, *Rec. XI*, 134.

micro-organisms in, *Rec. V*, 730.

role of water in, *Rec. V*, 1093.

soluble salts, *Rec. XII*, 28.

cultivation, *Rec. III*, 107; *VIII*, 756, 757; *IX*, 234; *X*, 731; *XII*, 927.

cultivation—

and manuring as related to physical properties, *Rec. XI*, 805.

continuous, effect of, *Rec. V*, 857; *VI*, 967.

deep *v.* shallow, *Rec. V*, 484.

reasons for, *Rec. VIII*, 756.

study of methods, *Rec. IX*, 931.

culture—

Campbell method, *Rec. XI*, 339.

deep, *Rec. IX*, 538.

decomposition of—

organic fertilizers in *Rec. III*, 113.

of organic matter in, *Rec. VIII*, 879.

depth, *Rec. VI*, 773.

denitrifying organisms in, *Rec. IV*, 614.

deterioration due to structure of, *Rec. V*, 832.

determination of—

acidity, *Rec. XI*, 1003.

agricultural value, *Rec. X*, 1031.

available constituents, *Rec. XI*, 131.

calcium carbonate, *Rec. XI*, 23; *XII*, 417.

carbon dioxide, *Rec. XI*, 508.

clay, *Rec. VI*, 118; *XI*, 903.

clay and sand, *Rec. IV*, 388.

fertilizer requirements, new method, *Rec. III*, 920.

humus, *Rec. V*, 511, 559, 857, 932, 937; *VI*, 118; *VIII*, 678; *XI*, 110; *XII*, 417.

lime, *Rec. VI*, 22, 118, 119, 503, 792; *VII*, 845.

magnesia, *Rec. VI*, 120; *VII*, 845.

mineral matter, *Rec. XI*, 131.

mineral plant food, *Rec. V*, 924, 1013.

moisture in. (*See SOIL MOISTURE, DETERMINATION.*)

nitrogen in, *Rec. III*, 616; *IV*, 961; *V*, 571; *VI*, 120.

phosphoric acid in, *Rec. V*, 126, 471; *VI*, 23, 119, 183; *VII*, 742; *X*, 714; *XI*, 505, 507, 508.

plant food, *Rec. XI*, 1019.

potash, *Rec. V*, 1009; *VI*, 23, 119, 183; *X*, 134, 514.

salt content by electrical method, *Rec. IX*, 535; *X*, 30; *XI*, 325.

sand, *Rec. IV*, 388.

soluble mineral matter, *Rec. XI*, 131.

soluble salts, *Rec. XII*, 29.

diffusion of fertilizers in, *Rec. IV*, 388.

Soils—Continued.

- disinfection for anthrax, *Rec. XI*, 894.
- distribution and biological importance of furfuroids, *Rec. XI*, 818.
- drainage. (*See DRAINAGE.*)
- drainage and evaporation for, *Rec. III*, 317.
- drainage waters from, *Rec. III*, 492, 901; *IV*, 295; *VIII*, 676; *IX*, 231; *X*, 931.
- drainage waters from cultivated, *Rec. III*, 492; *IV*, 614, 682; *V*, 730, 804; *VI*, 977; *VII*, 99.
- drought endurance in, *Rec. XII*, 921.
- effect—
 - of barnyard manure on water in, *Rec. IV*, 124, 125; *V*, 483.
 - continuous cultivation, *Rec. V*, 857; *VI*, 967.
 - humus on retentive power for water, *Rec. V*, 857.
 - organic and mineral acids, *Rec. VI*, 704; *VII*, 484.
 - physical properties on plant growth, *Rec. VI*, 635; *X*, 128.
 - pressure of carbonic acid on vegetation, *Rec. IV*, 517.
 - rolling, *Rec. II*, 442.
 - winds, *Rec. VI*, 622; *XII*, 526.
- on color of hydrangeas, *Rec. VIII*, 890; *IX*, 330.
- oil content of rape seed, *Rec. XI*, 141.
- peas, *Rec. I*, 283.
- propagation of smut, *Rec. XI*, 257.
- quality of vegetables, *Rec. VI*, 548.
- structure of plants, *Rec. XI*, 515.
- electrical method for determining moisture, temperature, etc., *Rec. IX*, 535; *X*, 30.
- elutriation process, *Rec. VIII*, 574.
- empty space in, *Rec. IV*, 19.
- erosion by water, *Rec. VII*, 486.
- evaporation, *Rec. IV*, 451.
- evaporation as affected by—
 - sodium salts, *Rec. XII*, 524.
 - spring plowing, *Rec. IV*, 112.
 - temperature, *Rec. VII*, 374, 753.
 - tillage, *Rec. II*, 435; *IV*, 124.
- examination, *Rec. V*, 162, 670.
- exhausted, improvement, *Rec. XII*, 527.
- exhaustion, *Rec. III*, 132; *VIII*, 756, 969.
- exhaustion—
 - and nitrate of soda, *Rec. X*, 623.
 - as cause of sugar-cane disease, *Rec. VII*, 224.
 - by citrus fruits, *Rec. V*, 589.
 - crops, *Rec. VI*, 515.
 - trees, *Rec. VI*, 881.
 - extent, *Rec. V*, 845.
 - in Egypt, *Rec. XI*, 437.
 - notes, *Rec. XII*, 732.
- exhibited by Geological Survey of Japan, analyses, *Rec. X*, 229.
- fermentations, *Rec. IV*, 536, 627; *V*, 346.
- fertility, *Rec. VII*, 476, 848; *X*, 197, 199.
- fertility—
 - and humates, *Rec. XI*, 228.
 - humus, *Rec. VII*, 477; *VIII*, 679; *XI*, 1099.

Soils—Continued.

- fertility as affected by—
 - carbon bisulphid, *Rec. X*, 831.
 - continuous culture, *Rec. V*, 857; *VI*, 706; *VIII*, 392.
 - culture, *Rec. VII*, 177, 476, 569; *X*, 1020; *XI*, 643.
 - deforestation, *Rec. IX*, 434.
 - fertilizers, *Rec. XI*, 331.
 - humus, *Rec. V*, 832; *VII*, 292, 377; *VIII*, 679, 756, 969; *IX*, 334.
 - manuring, *Rec. IX*, 36.
 - plant cover, *Rec. VIII*, 570.
 - rotation of crops, *Rec. IX*, 641.
 - wheat farming, *Rec. XI*, 1099.
- fertility—
 - as indicated by weeds, *Rec. IX*, 565.
 - related to analysis, *Rec. V*, 819; *XI*, 228.
 - related to climatic conditions, *Rec. XI*, 1022.
 - decline in, *Rec. V*, 832.
 - determination, *Rec. VIII*, 966; *XI*, 228, 1022; *XII*, 36.
 - effect on transpiration, *Rec. VII*, 926.
 - essential elements, *Rec. VII*, 477.
 - exhaustion and restoration, *Rec. VI*, 395.
 - humus as a factor, *Rec. VII*, 477.
 - influence of irrigation, *Rec. VI*, 395.
 - legumes for maintaining, *Rec. II*, 57; *XI*, 1036.
 - live stock as related to, *Rec. III*, 713.
 - loss by surface washing, *Rec. IX*, 932.
 - maintenance, *Rec. IX*, 543; *X*, 97; *XI*, 1036.
 - restoration, *Bul. 2*, *I*, 64; *Rec. VI*, 794; *VII*, 753.
 - rôle of humus, *Rec. IX*, 334.
 - studies, *Rec. XI*, 130; *XII*, 725.
- fertilizer—
 - constituents, *Rec. V*, 453, 832, 924, 1013.
 - constituents, assimilability, *Rec. XI*, 138.
 - constituents, utilization, *Rec. XI*, 228.
 - requirements, *Rec. X*, 1031, 1033, 1034; *XI*, 442.
 - requirements, new method of determining, *Rec. III*, 920.
- fertilizing, *Rec. VII*, 500; *X*, 235.
- fertilizing—
 - one-sided, *Rec. II*, 610.
 - with carbon bisulphid, *Rec. VII*, 32, 98, 197.
- flocculation, *Rec. III*, 301, 317.
- flocculation by lime, *Rec. VI*, 282.
- for artificial cultures, *Rec. XI*, 514.
- cranberries, *Rec. V*, 799.
- figs, analyses, *Rec. V*, 286; *VI*, 794.
- horticulture, *Rec. IX*, 755.
- limes, treatment, *Rec. VII*, 35.
- rape, *Rec. V*, 219.
- roses, analyses, *Rec. XI*, 625.
- formation, *Rec. III*, 114; *IV*, 276; *XII*, 319.
- formation—
 - and rock degeneration, *Rec. IX*, 233.
 - causes, *Rec. VII*, 290.
 - of ammonia by microbes, *Rec. V*, 614.
 - carbonic acid in, *Rec. IV*, 637.

Soils—Continued.

- fruit, of Oregon, *Rec. IX*, 737.
- fungi in, new method of destroying, *Rec. IX*, 852.
- fungus infestation, *Rec. XII*, 653.
- geological—
 - agronomic charting, *Rec. XII*, 1023.
 - origin, *Rec. IV*, 19, 23.
- geology, *Rec. I*, 26.
- glacial, of Illinois, *Rec. XII*, 924.
- heat—
 - exchange, daily, *Rec. XI*, 132.
 - radiation, *Rec. III*, 317; *VI*, 881.
- heavy—
 - cultivation, *Rec. VIII*, 756.
 - green manuring, *Rec. VII*, 376.
 - sweet clover as green manuring for, *Rec. V*, 701.
- hippuric acid in, *Rec. VII*, 377.
- humus, *Rec. X*, 129, 397.
- humus—
 - as related to culture of, *Rec. VIII*, 879.
 - content, *Rec. VI*, 197; *X*, 129; *XII*, 732.
 - content as affected by fertilizers, *Rec. XII*, 727.
 - content as affected by leaves, *Rec. VII*, 23.
 - content as affected by lime, *Rec. X*, 1022; *XI*, 824; *XII*, 727.
 - content as affected by rotation of crops, *Rec. IX*, 641.
 - content, studies, *Rec. XI*, 224.
 - experiments, *Rec. XII*, 32, 36.
 - formation as related to lime content of, *Rec. IV*, 614.
 - Grandean's method for, *Rec. V*, 922, 937; *VI*, 691.
 - improvement, *Rec. IX*, 738, 1038.
 - manganese in, *Rec. IX*, 1023.
 - nitrogen content, *Rec. VI*, 794; *VII*, 290.
 - organic compounds in, *Rec. VI*, 200.
 - substances, *Rec. III*, 119, 655.
- hygroscopic moisture, *Rec. III*, 316.
- hygroscopicity, *Rec. IV*, 222, 433.
- importance of analysis, *Rec. II*, 272.
- improvement—
 - in Canton St. Gallen, *Rec. VIII*, 872.
 - with stable manure, *Rec. V*, 730.
 - velvet beans and cowpeas, *Rec. XI*, 232.
- in relation to subjacent rocks, *Bul. 2, I*, 112.
- influence on—
 - crops, *Rec. VIII*, 114, 305.
 - seed production of sugar beets, *Rec. VII*, 300.
 - subterranean parts of plants, *Rec. VII*, 749.
- lateral movement of water in, *Rec. V*, 88.
- light—
 - catch crops for, *Rec. VII*, 682.
 - fertilizing, *Rec. IX*, 825.
 - management, *Rec. IV*, 133.
 - manuring, *Rec. VII*, 757; *VIII*, 485.
 - (*See also SOILS, SANDY.*)
- lime—
 - compounds in, *Rec. XII*, 1020.
 - requirements, *Rec. XI*, 1003; *XII*, 222.
- liming, *Rec. VI*, 130, 898; *VII*, 377, 378; *X*, 228, 335.

Soils—Continued.

- management, *Rec. XI*, 134.
- marsh, *Rec. X*, 397.
- marsh—
 - analyses, *Rec. X*, 136, 729.
 - and clay soils as affected by lime, *Rec. IX*, 1043.
 - fen soils, analyses, *Rec. V*, 346.
- culture experiments in Finland, *Rec. IX*, 1041.
- effect of animal manures, *Rec. XI*, 627.
- effect of sand and lime, *Rec. XII*, 623.
- examination, *Rec. X*, 130.
- fertilizer experiments, *Rec. XII*, 1008.
- nitrate of soda and sulphate of ammonia for, *Rec. XII*, 428.
- of Medoc, France, reclamation, *Rec. VI*, 976.
- Schleswig, *Rec. XII*, 427.
- meadow, nitrification in, *Rec. V*, 730, 903.
- mechanical—
 - analyses, *Rec. II*, 524, 663; *III*, 316; *IV*, 20; *V*, 924; *VII*, 753; *X*, 1027; *XII*, 257.
 - analysis, methods, *Rec. VIII*, 574; *XI*, 523; *XII*, 123.
 - classification, *Rec. V*, 569.
 - condition, effect on lettuce, *Rec. XI*, 552.
- microbes and organic matter in, *Rec. V*, 730.
- mineral plant food in, determination, *Rec. V*, 924, 1013.
- moist, effect on growth of plants, *Rec. VIII*, 756.
- moistened, determination of heat evolution, *Rec. XI*, 1022.
- moor. (*See MOOR SOILS.*)
- muck, *Rec. X*, 397.
- muck, nitrification, *Rec. IX*, 821.
- nitrate-bearing, analysis, *Rec. X*, 731.
- nitrites in—
 - conservation, *Rec. VI*, 706.
 - decomposition, *Rec. XI*, 32, 331, 831.
 - indol reagent for, *Rec. V*, 1027.
 - production by fallowing, *Rec. VIII*, 574.
 - reduction, *Rec. VII*, 663; *VIII*, 870.
- nitric acid bacteria in, *Rec. XII*, 222.
- nitrification, *Rec. III*, 139, 366, 578, 636, 899; *IV*, 294, 537; *V*, 730, 903; *VI*, 353, 491; *VII*, 190, 933; *VIII*, 569, 871; *IX*, 334, 813, 820, 929; *XII*, 320.
- nitrification—
 - as affected by cultivation, *Rec. IV*, 871, 961; *V*, 255.
 - of humus in, *Rec. IV*, 294.
- nitrifying ferments, *Rec. III*, 578; *V*, 651.
- nitrogen—
 - as related to wheat rust, *Rec. VI*, 58.
 - assimilating organisms in, *Rec. VI*, 200; *VII*, 278.
 - compounds in, *Rec. III*, 117.
 - conservation, *Rec. III*, 120, 578, 636; *V*, 15; *VII*, 682; *VIII*, 126, 679.
 - content, *Rec. VI*, 815; *IX*, 33; *X*, 829.
 - content as affected by crops and manures, *Rec. X*, 426.
 - content as affected by nitrate of soda, *Rec. V*, 651, 698.
 - fixation by, *Rec. III*, 552; *IX*, 1041.
 - investigations, *Rec. X*, 829.

Soils—Continued.

nitrogen—continued.

- losses and gains in, *Rec. III*, 120; *V*, 5, 9, 10, 14, 156, 419.
- transformation, *Rec. VII*, 22, 99, 754; *VIII*, 385, 574.

nitrogenous—

- compounds, volatile, *Rec. III*, 118.
- matter, rise and fall of, *Rec. III*, 139, 895.

notes, *Rec. X*, 315.of Alabama, analyses, *Rec. I*, 7.

Allegany County, Md., *Rec. XII*, 1023.

Arizona, improvement, *Rec. XII*, 798.

Arkansas Valley, *Rec. V*, 1074.

Barbary, *Rec. VI*, 200.

Belgium, analyses, *Rec. X*, 1031.

Beziers, France, examination, *Rec. VI*, 23.

of California—

analyses, *Rec. VI*, 794; *VIII*, 679.

fertilizer requirements, *Rec. VIII*, 680.

of Canada, *Rec. VII*, 571.

Canada, analyses, *Rec. VI*, 395; *VII*, 664; *VIII*, 871; *IX*, 821.

Canton of Redon, analyses, *Rec. XII*, 318, 319.

Cape Colony, analyses, *Rec. VI*, 794; *VII*, 487, 753.

Cape of Good Hope, analyses, *Rec. V*, 446; *XI*, 328, 823, 824, 1022; *XII*, 622.

Carmargue, composition, *Rec. X*, 531.

Carriacou, analyses, *Rec. IX*, 818.

Colorado, analyses, *Rec. I*, 191; *XII*, 523.

Connecticut Valley, map, *Rec. XII*, 527.

Courland, analyses, *Rec. VI*, 513; *VII*, 663; *VIII*, 573.

Crau, analyses, *Rec. X*, 130.

Denmark, nitric-acid bacteria in, *Rec. XII*, 222.

Dorset, analyses, *Rec. XI*, 327.

East Africa, analyses, *Rec. IX*, 538.

England and Wales, *Rec. VI*, 124.

Essex, analyses, *Rec. XI*, 328.

of Florida—

analyses, *Rec. I*, 25; *X*, 227, 330.

chemical study, *Rec. X*, 226.

description, *Rec. X*, 328.

moisture determination, *Rec. X*, 330.

of France, studies, *Rec. VIII*, 966.

German East Africa, analyses, *Rec. VIII*, 573.

Grenada, analyses, *Rec. IX*, 818.

Hagerstown Valley, examination, *Rec. IX*, 31.

of Hawaii—

available fertility, *Rec. XI*, 507.

determination of lime in, *Rec. XI*, 507.

of Hawaiian Islands—

analyses, *Rec. VII*, 571, 937; *X*, 526.

availability and loss of plant food, *Rec. X*, 527.

fertilizer experiments, *Rec. X*, 1021.

origin and nature, *Rec. X*, 525.

of Herzegovina and Macedonia, analyses, *Rec. XII*, 1023.

Highmore, analyses, *Rec. XII*, 547.

humid regions, character, *Rec. IV*, 277.

Iceland as affected by wind, *Rec. VII*, 475.

Idaho, analyses, *Rec. VII*, 486.

Illinois, investigation, *Rec. VII*, 377.

Soils—Continued.

of India, analyses, *Rec. X*, 421, 422.

of Iowa—

analyses, *Rec. X*, 28.

history and genesis, *Rec. VII*, 487.

of Island of Jersey, analyses, *Rec. VI*, 623.

Jamaica, analyses, *Rec. X*, 933.

Kamerun, analyses, *Rec. VIII*, 573.

Kansas, humus requirements, *Rec. XII*, 1024.

Kentucky, analyses, *Rec. VI*, 794.

Kongo, analyses, *Rec. XI*, 526.

Lake Temiscaming, analyses, *Rec. X*, 229.

Lodi, studies, *Rec. XI*, 134; *XII*, 91.

Lombardy, deficiency in lime, *Rec. XII*, 485.

Madagascar, analyses, *Rec. XII*, 1022.

marshes and fens, analyses, *Rec. V*, 346.

of Maryland—

studies, *Rec. II*, 466; *V*, 162; *VI*, 880; *XII*, 1098.

typical, *Rec. IV*, 19.

Minnesota, analyses, *Rec. VI*, 703; *VII*, 484; *VIII*, 482; *XI*, 1021.

of Mississippi—

analyses, *Rec. VIII*, 482; *XII*, 1022.

capabilities, *Rec. XI*, 397.

texture, *Rec. XI*, 328.

of Nebraska, analyses, *Rec. IX*, 737; *XII*, 124.

Nevada, adaptability to sugar-beet culture, *Rec. V*, 286.

New Jersey, classification, *Bul. 2*, *I*, 141.

New South Wales, analyses, *Rec. XII*, 927.

of North Dakota, analyses, *Rec. VIII*, 572.

North German flat lands, studies, *Rec. XI*, 434.

North Louisiana, *Rec. V*, 283.

North Louisiana, danger from deforestation, *Rec. V*, 285.

North Sea Coast, analyses, *Rec. IX*, 821.

Northern Sweden, analysis, *Rec. IV*, 693; *VI*, 200.

Norway, studies, *Rec. VI*, 395.

Oklahoma, *Rec. IV*, 711.

of Oklahoma—

analyses, *Rec. IX*, 333.

studies, *Rec. XI*, 433.

of Oran, studies, *Rec. VIII*, 679.

Oregon, *Rec. IV*, 464; *V*, 827.

of Oregon—

analyses, *Rec. X*, 332.

fertility, *Rec. X*, 331.

of Pas-de-Calais, studies, *Rec. VI*, 118.

Pecos Valley, studies, *Rec. XI*, 912.

pine barrens, pot experiments, *Rec. X*, 730.

Porto Rico, *Rec. XII*, 795.

Province of Bari, Italy, analyses, *Rec. XII*, 732.

Prussian flat lands, studies, *Rec. XI*, 435.

Queensland, analyses, *Rec. XII*, 124.

of Red River Valley—

analyses, *Rec. XI*, 226.

temperature and moisture, *Rec. XI*, 819.

of Rhein-Hessen, analyses, *Rec. XI*, 826.

of Rhode Island—

analyses, *Rec. VI*, 391.

lime requirements, *Rec. XI*, 918.

Soils—Continued.

of Russia—

- analyses, Rec. X, 229, 333.
- bibliography, Rec. XI, 32.
- catalogue, Rec. X, 229.
- chernozem, analysis, Rec. X, 333.
- classification, Rec. IX, 537, 1040.
- fertility, Rec. IX, 233.
- investigations, Rec. XII, 701, 704, 807.
- salt content and vegetation, Rec. XII, 925.
- study, Rec. IX, 1041; X, 421.

of Salt Lake Valley, studies, Rec. XII, 317.

Salt River Valley, analyses, Rec. X, 420; XI, 213.

San Joaquin Valley Substation, description and analyses, Rec. X, 229.

São Paulo, Brazil, analyses, Rec. VI, 199; XI, 916.

Senegambia, analyses, Rec. VIII, 573.

Siberia, analyses, Rec. XI, 1022.

South Africa, analyses, Rec. X, 827.

of southern Illinois—

- analyses, Rec. IX, 33.
- drainage, Rec. IX, 33.

of southern Wisconsin, analyses, Rec. IX, 536.

Survilliers, analyses, Rec. XII, 319.

of Tennessee—

- analyses, Rec. X, 26.
- survey, Rec. X, 26.

of Texas, Rec. IV, 712.

of Texas—

- analyses, Rec. VII, 377; X, 126.
- classification, Rec. VII, 571.

of Tokay wine regions, Rec. XII, 622.

Tunis as affected by climate, Rec. VIII, 574.

Turkestan, Rec. XII, 329.

Utah, analyses, Rec. X, 31; XII, 523.

Washington, analyses, Rec. VII, 375.

West Virginia, Rec. IV, 714.

Wisconsin, analyses, Rec. VII, 936.

Wyoming, Rec. IV, 956.

Wyoming, moisture content, Rec. X, 29.

organic matter and nitrogen in, Rec. V, 571, 730.

organisms of, Rec. IV, 248; V, 436, 730; VI, 200.

origin, Bul. 2, I, 140; Rec. IV, 222.

origin, analysis and renovation, Rec. II, 374.

oxidation, Rec. IV, 537.

oxidation of organic matter in, Rec. VIII, 208, 574.

penetration of rain fall, Rec. XI, 517.

pentosans in, Rec. VI, 124.

percolation of water from long columns of, Rec. VIII, 297; XII, 34.

permeability, Rec. IV, 517, 520; V, 128; VII, 487, 751.

phosphates—

- as affected by acid solutions, Rec. XI, 131.
- solubility, Rec. VII, 22, 488.

phosphoric acid—

- at different depths, solubility, Rec. XI, 822.

in, Rec. V, 24, 471; XI, 228, 822.

physical—

- action of fertilizers, Rec. III, 317.
- analysis, volume basis for calculating results, Rec. XII, 610.

Soils—Continued.

physical—continued.

- and chemical investigations of, Rec. V, 557, 562, 741, 818, 825; X, 31.

chemical properties, Rec. VI, 395.

condition as affected by plant roots, Rec. IX, 736.

condition as affecting diffusion of carbonic acid, Rec. III, 927.

conditions, control of, Rec. VIII, 554.

properties, Rec. VI, 761, 853, 948; X, 423, 831.

properties as related to action of fertilizers, Rec. IV, 638.

properties as related to cultivation and manuring, Rec. XI, 805.

properties as related to plant culture, Rec. IV, 528, 614, 627, 685.

properties, lectures, Rec. XII, 526.

properties as related to plant growth, Rec. X, 128.

plant food, assimilation, Rec. VII, 104.

plant growth as affected by, Rec. III, 316.

poor, crop production, Rec. IX, 1041.

position, Rec. VI, 774.

position and altitude of the water-table, Rec. II, 433.

potash in, Rec. V, 474, 902, 1009.

prairie, pit experiments, Rec. IV, 714.

preparation for—

flax, Rec. VII, 32.

spring grain, Rec. XI, 630.

sugar beets, Rec. X, 147.

productiveness. (See SOILS, FERTILITY.)

protection from winds, Rec. VIII, 298.

pulverization, Rec. X, 731.

quality as determined by plant analysis, Rec.

VII, 932; VIII, 308.

radiation of heat, Rec. III, 317; VI, 881.

reclamation, Rec. VI, 791.

reducing processes in, Rec. V, 436.

renovation, Rec. V, 832; VII, 573.

renovation with pea vines and stubble, Rec. V, 174.

residual effect of phosphates, Rec. VI, 130.

retentive power for water as affected by humus, Rec. V, 857.

reversion of—

phosphoric acid, Rec. VII, 572.

soluble phosphate of lime in, Rec. IV, 388, 587.

review of literature, Rec. X, 334.

rice—

of North Carolina, Rec. IV, 850.

South Carolina, Rec. IV, 848.

rocky, trees for, Rec. X, 1046.

rôle of carbonate of lime, Rec. VI, 283, 395.

rolled and unrolled, water content, Rec. IV, 121.

saline, plants, Rec. IX, 812, 921.

sampling, Rec. III, 301, 412; IV, 950; V, 1029; VI, 118; IX, 1041.

sampling—

apparatus for, Rec. XII, 426.

improved auger for, Rec. IV, 985.

method, Rec. II, 445, 524.

tube, Rec. III, 831.

Soils—Continued.

sandy—

- analyses, Rec. XII, 622.
- as affected by lime and marl, Rec. X, 940.
- behavior toward superphosphates, Rec. II, 457.
- conservation of moisture, Rec. IX, 335.
- culture, Rec. VI, 794.
- fertilization by leguminous plants, Rec. IX, 446.
- fertilizer experiments, Rec. IV, 222.
- grapes on, Rec. VIII, 55.
- in Schleswig-Holstein, cultivation, Rec. IX, 821.
- needs and treatment, Rec. XII, 621.
- notes, Rec. XII, 319.
- plants for, Rec. VII, 398.
- potash experiments, Rec. XII, 1008.
- science, Rec. XI, 434.
- self-purification, Rec. IX, 538.

soluble—

- mineral matter, Rec. XI, 434.
- phosphoric acid, physiological value, Rec. V, 1015.
- salts, Rec. VII, 373.
- solution theory as applied to study of, Rec. XII, 523.
- sterilization for hothouse pests, Rec. XI, 361.
- sterilized—
 - effect on root tubercles of cowpeas, Rec. IX, 446.
 - loss of nitrogen in, Rec. VIII, 476.
- sterilizer, steam, Rec. X, 265.
- storage capacity for water, Rec. II, 432, 434, 445; VI, 121; VII, 566.
- stratification, Rec. VI, 773.
- studies, Rec. XII, 319.
- study, Rec. III, 296; XI, 130, 434.
- study, geological significance, Rec. XI, 827.
- sulphate of ammonia, poisonous effects on, Rec. VIII, 571; IX, 937.
- surface—
 - plant growth as affected by depth of, Rec. VIII, 662.
 - temperature, Rec. IX, 232, 433.
- swamp, Rec. X, 397, 728.

swamp—

- as affected by phosphates, Rec. VII, 293.
- experiments, Rec. XII, 32, 36.
- treatment, Rec. IX, 536.
- Swedish, analyses, Rec. IV, 693.
- text-book, Rec. V, 820.
- texture, Rec. VIII, 574; IX, 932.
- texture—
 - as affected by fertilizers, Rec. IV, 18.
 - related to moisture content, Rec. V, 730, 805.
- tillage—
 - as affecting action of fertilizers, Rec. IV, 640.
 - early, to prevent formation of clods, Rec. IV, 122.
- tillth as affected by time of plowing, Rec. IV, 122.
- tobacco, Rec. X, 531.
- treatises, Rec. X, 229; XI, 133, 826.
- treatment, Rec. XI, 274.
- underdraining, Rec. III, 514.

Soils—Continued.

- underground and cultivated, Rec. IX, 34.
 - undetermined constituent of, Rec. IV, 222.
 - upland, acidity, Rec. VIII, 553, 679; XII, 927.
 - valuation, Rec. VI, 24.
 - value as determined by plant and soil analysis, Rec. V, 730, 819, 1029.
 - vertical drainage, Rec. V, 796.
 - virgin of Canada, Rec. VII, 571.
 - washed, reclamation, Rec. VI, 515.
 - water— (*See also* SOIL MOISTURE.)
 - available to corn, Rec. IV, 128.
 - capacity, Rec. III, 927; VII, 487, 569; VIII, 569, 679.
 - capillary rise, Rec. X, 228.
 - circulation, Rec. IV, 17, 21, 23; VI, 703.
 - control of, Rec. IV, 22.
 - evaporation, Rec. XI, 324, 326.
 - fluctuation, Rec. V, 486.
 - function, Rec. IV, 530.
 - lateral movement, Rec. V, 88.
 - movement in, Rec. II, 434, 442, 443, 444; III, 316; IV, 17, 21, 23, 122, 123, 670; V, 88; VI, 853; IX, 433; X, 727; XI, 228, 434; XII, 620.
 - movement and retention, Rec. XI, 228, 434.
 - phosphoric acid in, Rec. X, 929; XI, 821.
 - retentive power for, as affected by humus, Rec. V, 857.
 - rise of, *in situ*, Rec. IV, 123.
 - translocation, Rec. II, 442.
 - transport of soluble salts by, Rec. VII, 373.
 - water content. (*See also* SOIL MOISTURE.)
 - water content, Rec. VIII, 301; XI, 517.
 - water content—
 - after different crops, Rec. V, 1029.
 - prolonged drought, Rec. IV, 871; V, 650.
 - as affected by barnyard manure, Rec. IV, 124, 125; V, 483.
 - affected by cultivation, Rec. V, 484; VIII, 301.
 - affected by cultivation after rain, Rec. II, 443.
 - affected by fallowing, Rec. IV, 125.
 - affected by rolling, Rec. IV, 121.
 - related to plant growth, Rec. IV, 371, 614.
 - during drought, Rec. V, 650; VII, 487.
 - during May and June, 1895, Rec. VII, 483.
 - effect on the ash and fertilizing constituents of plants, Rec. X, 1023.
 - effect on plants, Rec. VII, 751.
 - water-holding power, apparatus for estimating, Rec. VII, 569.
 - water table, fluctuations in, Rec. II, 433.
 - wet, movement of water in, Rec. II, 444.
 - white clover, of Lombardy, Rec. XII, 485.
 - worn—
 - availability of plant food, Rec. X, 275.
 - improvement, Rec. IX, 735; XII, 1025.
- Soja hispida.* (*See* SOY BEAN.)
- Soja* sauce, manufacture, Rec. IX, 480.
- Solanaceæ*—
- comparative anatomy, Rec. IX, 624.
 - economic, of India, Rec. VIII, 109.
 - localization of alkaloids, Rec. VIII, 290.

- Solanaceae*—Continued.
 notes, Rec. V, 1014.
 seed coats, Rec. VIII, 670.
 study of alkaloids, Rec. III, 925.
- Solanaceæ "E,"* notes, Rec. VI, 903.
- Solandi printing, Rec. VI, 486, 487, 785.
- Solanin—
 in potatoes, Rec. VII, 652, 749; X, 953, 1005.
 notes, Rec. XI, 214.
 physiological functions, Rec. XII, 217.
 studies, Rec. X, 1005.
- Solanum*—
betaceum—
 culture experiments, Rec. VIII, 700.
 notes, Rec. VI, 722.
carolinense. (See HORSE NETTLE.)
coccineum, notes, Rec. II, 739.
depressum, notes, Rec. II, 739.
dulcamara. (See BITTERSWEET.)
clavatifolium, notes, Rec. VI, 732; IX, 142.
ellipticum, notes, Rec. IX, 957.
esculentum, notes, Rec. II, 739.
escuriale, notes, Rec. IX, 957.
integrifolium, notes, Rec. II, 739.
melongena, notes, Rec. II, 739; X, 853.
 (See also EGGPLANT.)
muricatum, notes, Rec. III, 618.
nigrum, notes, Rec. III, 598; X, 516.
 (See also NIGHTSHADE, BLACK.)
ovigerum, notes, Rec. II, 739.
rostratum. (See BUFFALO BUR.)
serpentinum, notes, Rec. II, 739.
 spp., notes, Rec. VII, 511.
texanum, notes, Rec. II, 739.
torreyi, notes, Rec. XI, 354.
triflorum, notes, Rec. X, 516.
tuberosum boreale, Rec. IV, 817.
- Solanums, culture, Rec. IX, 451.
- Solar—
 combustion, analogies between the processes
 of fermentation and, Rec. V, 819.
- eclipse—
 observations, Rec. XII, 1015.
 of May 28, 1900, Rec. XI, 621.
- halo, Rec. XI, 222.
- light, diffused effect on plant growth, Rec. X,
 125.
- observations at the Royal Observatory of the
 Roman College, Rec. IX, 427.
- prints of wood, Rec. VI, 56.
- radiation, Rec. III, 396; X, 616.
- radiation—
 effect on plant growth, Rec. V, 345; XI,
 907; XII, 909.
 notes, Rec. XII, 918.
 studies, Rec. XI, 819.
- spots and terrestrial phenomena, Rec. XII,
 119.
- Soldier beetle—
 as a parasite of sugar-cane borer, Rec. II, 644.
 spined, as an enemy of cotton worm, Rec. II,
 319.
- Soldier bug—
 banded, notes, Rec. III, 175; IV, 58.
 glassy-winged, notes, Rec. III, 42.
 gray, notes, Rec. VI, 741.
 green, notes, Rec. V, 409.
 notes, Rec. V, 499.
- Soldier bug—Continued.
 ring-banded, Rec. VII, 880.
 spine-legged, notes, Rec. VI, 741.
 thick-thighed, notes, Rec. IV, 58.
- Soldiers, dietary hygiene, Rec. IX, 479.
- Solenopsis fugax*, notes, Rec. II, 328; IV, 838.
- Solidago*—
canadensis, notes, Rec. IV, 699.
juncea, analyses, Rec. III, 629.
nemoralis, notes, Rec. IV, 699.
rugosa, notes, Rec. IV, 699.
 spp., notes, Rec. IV, 829.
- Solids—
 and liquids, apparatus for treating, Rec. VII,
 15.
 in milk and butter, determination, Rec. XI,
 905.
 in solution, determination, Rec. VIII, 861.
- Solomon's seal, new disease, Rec. XII, 1057.
- Solution, theory, Rec. IX, 116.
- Solutions, theory of, as applied to the study of
 soils, Rec. XII, 523.
- Solvayhall "hartsalz," agricultural value, Rec.
 X, 427.
- Somatology and hygiene, text-book, Rec. IX, 982.
- Somatoplasm as affected by grafting, Rec. XI, 346.
- Somatose—
 dietary experiment, Rec. VII, 890.
 notes, Rec. XII, 1077.
- Sonchus*—
arvensis. (See THISTLE, SOW.)
asper, notes, Rec. VII, 689.
- oleraceus*—
 notes, Rec. III, 598, 599; IV, 47; VII, 511.
 root system, Rec. IV, 46.
- Soot—
 analyses, Rec. I, 282; V, 165; VI, 202, 522;
 VII, 294; XI, 1026; XII, 717, 933.
 as a fertilizer, Rec. VIII, 969.
 of soft coal, analyses, Rec. XI, 831.
- Sooty mold—
 of citrus fruits, notes, Rec. IX, 361; XII, 463.
 treatment, Rec. X, 861.
- Sophora*—
japonica—
 coloring matters, Rec. VI, 869.
 notes, Rec. X, 53.
secundifolia, notes, Rec. VI, 335.
scricea, notes, Rec. V, 319.
- Sorbit in the fruit of the cherry laurel, Rec. III,
 749.
- "Sorbosé bacteria," action on aldehydes, Rec.
 XI, 125.
- Sorbosé—
 biochemic production, Rec. XI, 124.
 preparation, Rec. VII, 834.
- Sorbus*—
americana, notes, Rec. III, 788.
- aucuparia*—
fructu dulci, notes, Rec. VIII, 601.
sclerotium disease, Rec. VII, 311.
- Sordaria*—
amphisphærioides, notes, Rec. VIII, 867.
violacea, notes, Rec. VIII, 867.
- Sorex*—
cooperi, notes, Rec. X, 25.
dobsoni, n. sp., notes, Rec. III, 184.

Sorex—Continued.

- idahoensis*, n. sp., notes, Rec. III, 184.
platyrhinus, notes, Rec. X, 25.
 sp., in Idaho, Rec. III, 184.
vagrans similis, n. sp., notes, Rec. III, 184.

Sorghum—

- analyses, Bul. 2, I, 33; Bul. 2, II, 31, 38, 73;
 Rec. I, 233, 250; II, 41, 55, 147, 315, 334, 339,
 340, 580, 582, 589, 658, 719, 742, 743; III, 15, 16,
 147, 281, 401, 687, 696, 803; IV, 142, 143, 250,
 721, 722, 952, 953; V, 64, 217; VI, 37, 45, 274;
 VIII, 688; IX, 1024; X, 345, 515; XI, 277, 883;
 XII, 234, 274, 442, 547, 942.

and corn, culture experiments, Rec. IV, 36.

as a forage crop, Rec. III, 40; IX, 348; X, 147;
 XII, 45.

stock food, Rec. XII, 692.

bagasse—

composition, Rec. V, 1082.

for cows, Rec. VII, 64.

cows, steers, and goats, Rec. V, 1081.

blading cane, Rec. XI, 142.

blight—

bacterial, Rec. X, 456, 562.

inoculation experiments, Bul. 2, II, 34.

notes, Bul. 2, II, 34; Rec. II, 318; VI, 714;
 XI, 465, 949.

remedies, Bul. 2, II, 34.

borer moth, notes, Rec. XII, 770.

branching, notes, Bul. 2, II, 23.

cane, analyses, Rec. III, 15; VIII, 377.

cane juice, analyses, Rec. VII, 835, 862.

Chinese, culture experiments, Rec. IV, 36.

condition—

August, 1892, Rec. IV, 283.

in the United States, Rec. III, 253.

cost of—

production, Rec. II, 48.

working, Rec. II, 47.

crop statistics, Rec. VI, 582.

crossing, Rec. II, 340, 722.

culture, Rec. XII, 443.

culture—

experiments, Bul. 2, I, 37, 70, 134; Bul. 2,
 II, 31; Rec. II, 149, 270, 317, 411, 550, 580,
 596, 643, 719, 721, 742; III, 16, 40, 85, 148,
 281, 325, 599, 696; IV, 81, 248, 251, 346, 437,
 821; V, 39; VI, 46, 215, 296, 405, 532, 542,
 715, 808, 809; VII, 120, 121, 397; VIII, 401;
 X, 244, 340, 345, 430, 838; XI, 849.

experiments in India, Rec. V, 333.

in Kansas, Rec. IV, 951.

Louisiana, Rec. IV, 951.

on alkali soils, Rec. XII, 538.

determination of available sugar, Rec. XI, 142.

digestibility, Rec. II, 744; XII, 872.

disease in—

Africa, Rec. XII, 657.

India, Rec. V, 354.

effect of—

fertilizers, Bul. 2, II, 31; Rec. II, 721.

frost on sugar content, Rec. IV, 142.

experiments in growing for sugar, pedigree-
 ing seed, etc. (See footnote, p. 70.)

fertilizer experiments, Bul. 2, I, 72, 145; Rec.
 I, 75, 132; IV, 250, 722; VI, 37.

fertilizing constituents, Rec. II, 743.

Sorghum—Continued.

fodder for cows, steers, and goats, Rec. V, 1081.

for cows, Rec. III, 40; X, 430.

fodder, Rec. XII, 134.

pigs, Rec. II, 736; IV, 262; VI, 760; VIII, 817.

silage, Rec. III, 17.

steers, Rec. IV, 936.

summer soiling, Rec. II, 271.

sugar production, adaptability, Rec. II,
 46.

grain smut studies, Rec. XII, 357.

green, digestibility, Rec. III, 454.

harvesting, Rec. III, 16.

hay, analyses, Rec. XII, 234.

head smut, studies, Rec. XII, 357.

imported varieties, tests, Rec. XII, 234.

improvement, Rec. XI, 296.

improvement by seed selection, Bul. 2, II, 31;

Rec. II, 54, 340, 719, 721, 748; IV, 721; VI, 37.

in Kansas, notes, Rec. VII, 32.

insects affecting, Rec. VIII, 507.

irrigation experiments, Rec. XII, 842.

juice—

analyses, Bul. 2, I, 145; Rec. III, 400.

defecation, Rec. IV, 954.

keeping qualities, Bul. 2, II, 31; Rec. IV, 952.
 leaves—

analyses, Rec. II, 340.

composition, Rec. V, 1082.

lice on, remedies, Bul. 2, I, 30.

liming, Rec. III, 400.

losses in ensiling, Rec. VI, 66.

louse, kerosene for, Bul. 2, I, 30.

nonsaccharine—

feeding value, Rec. XII, 587.

notes, Rec. II, 337.

notes, Bul. 2, I, 164; Rec. II, 743; V, 577, 871,
 1074; XI, 1037; XII, 332, 539, 1031.

planting, Rec. II, 340, 596; III, 16.

poisoning of cattle, Rec. XII, 486.

quality of Iowa-grown, Rec. II, 719.

rust, iron chlorid for, Rec. III, 287.

saccharine, notes, Rec. II, 337.

seed—

analyses, Rec. III, 400; IV, 175.

distribution, Rec. XII, 997.

effect of carbon bisulphid on, Rec. V, 593.

insect injuries, Rec. X, 1063.

selection, Rec. II, 340; IV, 721.

silage, Rec. X, 182.

silage—

analyses, Rec. II, 743; V, 217; VI, 66; XII,
 234.

for cows, Rec. III, 216, 222.

losses in, Rec. VI, 66.

value as a feeding stuff, Rec. II, 743.

sirup, Rec. VI, 46.

sirup—

adulteration, Rec. II, 55.

manufacture, Rec. IV, 843, 954; IX, 594;
 XI, 293.

smut—

copper sulphate for, Rec. V, 354.

culture experiments, Rec. VII, 693.

injuries, Rec. II, 722.

notes, Rec. III, 287; VII, 140; XII, 1056.

treatment, Rec. III, 287.

- orghum—Continued.
 suckers, sugar in, Rec. IV, 142.
 sugar—
 alcohol in manufacture, Rec. III, 366.
 content, Rec. IV, 142; VI, 984; VIII, 688; X, 345, 515.
 content as affected by fertilizers, Bul. 2, I, 26.
 content at different stages of growth, Bul. 2, II, 31.
 making experiments, Rec. I, 44, 212, 300; III, 296, 366; IV, 81, 722, 843.
 manufacture, Bul. 2, I, 134; Rec. II, 47, 55, 469, 747; IV, 81.
 value for grain and forage, Rec. VIII, 124.
 varieties, Bul. 2, I, 26, 144, 163; Bul. 2, II, 31, 84; Rec. I, 44, 75; II, 49, 54, 69, 172, 270, 317, 339, 353, 396, 411, 550, 568, 580, 589, 643; III, 16, 82, 85, 281, 400, 687, 696, 703, 802; IV, 142, 248, 250, 411, 645, 721, 722, 725, 824; VI, 44, 808; VII, 761, 953; VIII, 488, 975; IX, 832; X, 245; XI, 43, 142; XII, 443, 637, 942.
 varieties developed by the Division of Chemistry, Rec. XI, 319.
v. horse-tooth corn, Rec. VIII, 781.
 yield, Rec. IV, 825.
 yield—
 in 1892, Rec. IV, 500.
 of sugar from, Rec. II, 46, 719, 747.
- Sorghum*—
cernuum, notes, Rec. V, 437.
halepense. (See JOHNSON GRASS.)
kaffrorum. (See KAFIR CORN.)
saccharatum, notes, Rec. IX, 1028; X, 417.
vulgare—
 analyses, Bul. 2, I, 108; Rec. I, 233.
 cernuum, notes, Rec. III, 51.
 culture, Rec. IX, 1048.
 notes, Bul. 2, I, 189; Bul. 2, II, 33.
- Sorghums for forage and grain, Rec. VI, 898.
 Soricidæ in Idaho, Rec. III, 184.
Sorosporium montivæ, notes, Rec. VII, 839.
 Sorrel—
 analyses, Rec. III, 296, 629; VII, 155.
 and clover, relative growth upon acid soil before and after liming, Rec. VIII, 584.
 culture, Rec. IX, 357.
 fertilizer formula, Rec. XII, 851.
 notes, Rec. III, 308, 893; IV, 47; V, 398, 529; IX, 957; X, 343; XI, 315, 354.
 root system, Rec. IV, 47.
- Sotol—
 analyses, Rec. VIII, 331.
 notes, Rec. VIII, 306.
- Sotops hopei*, notes, Rec. VIII, 69.
 Soudanese grass, analyses, Rec. X, 184.
 Sound theories, importance, Rec. IX, 531.
 Sounds, measuring and photographing, Rec. XI, 430, 622.
 Soup tablets, analyses, Rec. VII, 890.
 Soups, canned, analyses, Rec. XI, 769.
 Sour dock—
 law regarding, Rec. I, 324.
 notes, Rec. VI, 145.
- Sour grass—
 digestibility, Rec. X, 1082.
 v. clover hay for milk production, Rec. X, 1083.
- South Carolina phosphate—
 analyses, Rec. II, 280, 581; III, 299; IV, 25; V, 288; VI, 396, 797; VII, 380, 668, 854; VIII, 966; IX, 636, 939; X, 426.
 for corn, Rec. II, 484.
 peas, Rec. IV, 132.
 potatoes, Rec. II, 485; III, 159.
 turnips, Rec. IV, 132.
 phosphoric acid content, Bul. 2, I, 41.
 use, Rec. III, 294.
- Southerly bursters, studies, Rec. VI, 617.
- Southern—
 cattle plague. (See TEXAS FEVER.)
 cowpea, culture experiments, Bul. 2, I, 88.
 drift in its agricultural relations, Rec. II, 14.
 yellow pine, Rec. II, 143.
- Southdown sheep, notes, Rec. II, 642.
- Sowing—
 drill, Rec. VII, 210.
 yield as affected by time of, Rec. VII, 863.
- Sows— (See PIGS.)
- Soxhlet's extractor, modification, Rec. IV, 870.
- Soy bean—
 and corn silage—
 analyses, Rec. III, 288; V, 195.
 digestibility, Rec. V, 668.
 as affected by nitrogenous fertilizers, Rec. XI, 837.
 fodder—
 analyses, Rec. IX, 786; XII, 1077.
 digestibility, Rec. VIII, 423.
 green, analyses, Rec. V, 194; IX, 873.
 hay—
 analyses, Rec. V, 64.
 composition, Rec. V, 1082.
 for cows, Rec. VII, 320.
 cows, steers, and goats, Rec. V, 1081.
- meal—
 analyses, Rec. VI, 331; VIII, 426.
 and timothy hay, digestibility, Rec. VIII, 423.
 digestibility, Rec. VII, 317.
 effect on yield of milk, Rec. V, 969.
 preparation, Chinese, Rec. VIII, 72.
 proteids, Rec. X, 218, 219.
 seed, analyses, Rec. I, 79; XII, 1077.
- silage—
 analyses, Rec. V, 64.
 digestibility, Rec. IV, 736; VIII, 510.
 for beef production, Rec. V, 687.
 cows, Rec. V, 1065.
 straw, analyses, Rec. V, 194; VI, 331.
 vines, analyses, Rec. II, 170; III, 319, 375; VIII, 426; X, 474.
 white, analyses, Rec. I, 79.
- Soy beans—
 analyses, Bul. 2, I, 181; Bul. 2, II, 73; Rec. I, 79; II, 170, 200, 579, 580; III, 157, 159, 319, 375, 869; IV, 66, 154; V, 171, 992; VI, 294, 331; VII, 155, 296, 336; VIII, 426, 520; X, 946; XII, 378.
 and soy-bean products, Rec. VII, 891.
 vetch, ensiling, Rec. VI, 918.
 as a feeding stuff, Rec. XI, 397.
 a forage crop, Rec. III, 376; V, 1074; VI, 96; XII, 45.
 food, Rec. IX, 786, 981.
 forage, Rec. IX, 745, 981; XII, 332.

Soy beans—Continued.

- culture, Rec. X, 43, 542; XI, 733, 927; XII, 142.
 culture experiments, Bul. 2, II, 70; Rec. II, 24, 579, 580, 643; III, 17, 159, 325, 696, 699; IV, 39, 140, 154, 646, 661, 725; V, 171, 176; VI, 35, 294, 296, 532, 542, 886, 982; VII, 120, 121, 295, 298; VIII, 970; X, 340, 430; XI, 833; XII, 536.
 digestibility, Bul. 2, I, 181.
 dry matter at different stages, Rec. V, 195.
 entire plant, analyses, Rec. II, 579, 580.
 fertilizer experiments, Rec. V, 170, 291, 778, 779, 780; VI, 293; VIII, 398; IX, 340; XII, 127, 228, 1028.
 for cows, Rec. III, 153; VII, 150.
 culture media, Rec. VII, 660.
 pigs, Rec. X, 1086; XII, 143, 347, 898.
 green, for cows, Rec. IV, 65.
 imported, tests, Rec. XII, 234.
 inoculation experiments, Rec. X, 119; XII, 312, 333.
 notes, Rec. II, 24, 200, 336, 601; V, 820, 908; VI, 722; XII, 134, 328, 332, 898, 945, 997.
 root tubercles, Rec. VI, 279; VII, 657, 750; XII, 334.
 varieties, Rec. II, 149; IV, 154; V, 291; VI, 35, 416; VIII, 400.
 Spaghetti, preparation, Rec. IX, 87.
 Spain, Agronomic Station of, report, Rec. IV, 875.
 Spalato, Dalmatia, agricultural school, Rec. X, 98.
 Spalato, Austria, Experiment Station, report, Rec. XI, 198.
 Spanish—
 lime, notes, Rec. VI, 636.
 moss, analyses, Rec. II, 491, 550, 579.
 needles—
 analyses, Rec. III, 629.
 notes, Rec. III, 893.
 Spanworm, notes, Rec. V, 654.
Sparassis crispa, notes, Rec. VI, 728.
Sparanium eurycarpum, notes, Rec. VI, 404.
 Sparkleberry, notes, Rec. XII, 1045.
 Sparrow—
 chipping, feeding habits, Rec. X, 726; XI, 712.
 English, notes, Rec. XI, 426, 428.
 hawk, notes, Rec. IX, 530.
 Sparrows—
 economic relations, Rec. XII, 423.
 tree, notes, Rec. XI, 428.
Spartina—
 cynosuroides—
 analyses, Rec. XII, 586.
 notes, Rec. II, 321, 329, 487; V, 990; VIII, 780.
 juncea, notes, Rec. II, 486.
 stricta glabra, notes, Rec. II, 486.
 Spavin, notes, Rec. XI, 291.
 Spayed cows at the Geneva Exhibition, Rec. VIII, 258.
 Spaying—
 Charlier method, Rec. II, 197.
 cows, Bul. 2, I, 105, 110; Rec. I, 8; II, 197, 318; VI, 165; VIII, 834; X, 488; XI, 789; XII, 394.
 effect on—
 metabolism, Rec. VIII, 157.
 milk production, Rec. II, 197; XI, 86, 696.
 mares, Rec. IX, 391.

Spear grass—

- analyses, Rec. IV, 769, 770.
 as a forage plant in Sweden, Rec. IV, 771.
 bunch, analyses, Rec. VI, 404.
 Southern, analyses, Rec. VI, 403.
 Species—
 displacement in New Zealand, Rec. VIII, 419.
 making, philosophy of, Rec. VIII, 747.
 man's agency in distribution, Rec. IX, 729.
 or subspecies, Rec. IX, 861.
 origin by change of environment, Rec. VIII, 157.
 Specific gravity, Rec. VI, 770.
 Specific gravity—
 bottle cover, Rec. VI, 15.
 of liquids, determination, Rec. VIII, 861.
 Spectroscopic determination of potassium, Rec. IX, 420.
 Spectrum—
 assimilatory energy of blue and violet rays, Rec. IX, 29, 422.
 effect on—
 coloration of plant tissues, Rec. XI, 907.
 growth of silkworms, Rec. XI, 908.
 of argon and aurora borealis, Rec. VI, 965.
 Speculation v. industry, Rec. III, 813.
 Speed indicator for centrifuges, Rec. IV, 692.
 Speedwell, root system, Rec. IV, 47.
Spegazzinia ammophilæ, notes, Rec. VII, 839.
 Spelt—
 analyses, Rec. XI, 831; XII, 273.
 and wheat, crossing, Rec. X, 826.
 botanical notes, Rec. XII, 219, 898.
 crossing, Rec. X, 826.
 culture experiments, Rec. III, 599.
 husks, analyses, Rec. XII, 273.
 in Virginia, Rec. XI, 1037.
 injury to grain by thrashing, Rec. XII, 42.
 notes, Rec. XI, 332, 1037.
 Russian, varieties, Rec. XII, 42.
 varieties, Rec. III, 599; VI, 807; XII, 942.
Spergula— (See also SPURRY.)
 arvensis—
 analyses, Rec. IX, 267.
 notes, Rec. II, 598; IV, 821; V, 913; VI, 294; IX, 41.
 maxima—
 analyses, Rec. XII, 471.
 notes, Rec. I, 89; II, 650; IX, 41.
 Sperm oil, fuel value, Rec. III, 386.
 Spermaphytes, morphology and physiology, Rec. IX, 526.
 Spermatophytes, organography, Rec. X, 23.
Spermophagus pectoralis, notes, Rec. XI, 470; XII, 363.
 Spermophile—
 flea, notes, Rec. IX, 254.
 louse, Rec. II, 609.
 Spermophiles—
 enemies and means of destruction, Rec. V, 416.
 experimental trichinosis in, Rec. VI, 932.
 investigations, Rec. X, 727.
 notes, Rec. II, 258; IV, 802; V, 161, 386, 676.
 of the Mississippi Valley, Rec. V, 416.
 remedies, Bul. 2, I, 30; Rec. XI, 393, 711.

Spermophiles—Continued.

strychnin for, *Bul.* 2, I, 30.
susceptibility to pathogenic bacteria, *Rec.* IX, 422.

Spermophilus—

beecheyi, notes, *Rec.* V, 161.
columbianus, notes, *Rec.* V, 386.
douglasi, notes, *Rec.* V, 161.
elegans, notes, *Rec.* V, 386.
franklinii, notes, *Rec.* IV, 802; V, 416.
mexicanus, notes, *Rec.* V, 416.
mollis—
 canus, notes, *Rec.* IX, 1030.
 stephensi, notes, *Rec.* IX, 1030.
 yakimensis, notes, *Rec.* IX, 1030.
oregonus, notes, *Rec.* IX, 1030.
richardsoni, notes, *Rec.* V, 416.
rufescens, fighting with bacteria, *Rec.* XI, 711.
spilosoma—
 notes, *Rec.* II, 258.
 obsoletus, notes, *Rec.* V, 416.
sp., in Idaho, *Rec.* III, 184.
tridecemlineatus—
 alleni, notes, *Rec.* IX, 1030.
 notes, *Rec.* I, 211; V, 416; VI, 932.
 texensis, notes, *Rec.* IX, 1030.

Spermatozoa—

of *Chara fragilis*, structure, *Rec.* IV, 692.
plants, structure and development, *Rec.* VI, 969.

Spermatozoids in pollen tubes of *Cycas revoluta*, *Rec.* VIII, 670.

Spermaphyta of northeastern America, list, *Rec.* VI, 786.

Sphacellariaceæ, nuclear and cell division of, *Rec.* VIII, 957.

Sphaceloma ampelinum—

as a cause of grape anthracnose, *Rec.* IX, 961; XI, 861.
nature and treatment, *Rec.* III, 847.
notes, *Rec.* I, 319; II, 482; III, 172, 313, 403; IV, 659, 838; V, 61, 629; VI, 62, 738; VII, 965; X, 763; XI, 59.

Sphæralcea angustifolia, notes, *Rec.* VI, 732.

Sphærella—

andromedæ, n. sp., notes, *Rec.* VI, 1000.
basicola, n. sp., notes, *Rec.* VI, 909.
fragariæ— (*See also* STRAWBERRY LEAF BLIGHT.)
 nature and treatment, *Rec.* III, 847; IV, 659.
 notes, *Rec.* I, 281; II, 32, 246, 482; III, 217; V, 194, 585; VI, 558, 560, 823, 910; VII, 39; VIII, 786, 999; XI, 261.
 prevalence, *Rec.* III, 515.
gossypina, notes, *Rec.* IV, 831, 835.
laricina—
 notes, *Rec.* VII, 513; XII, 958.
 on *Larix leptolepis*, *Rec.* VII, 775.
spp., notes, *Rec.* V, 788.

Sphæria—

morbosa. (*See* PLUM BLACK KNOT.)
sp., notes, *Rec.* XII, 219.
ulmæ, notes, *Rec.* IV, 50.

Sphæriaceæ, new species, notes, *Rec.* VI, 311.

Sphæriales, stroma-forming, morphology, *Rec.* XII, 422.

Sphæritidæ, monograph, *Rec.* XI, 562.

Sphærococcus sylvestris in Massachusetts, *Rec.* X, 770.

Sphæroderma damnosum—

notes, *Rec.* VII, 695; IX, 1062.
on wheat, *Rec.* VII, 410.

Sphærophila coccophila, parasitic on San José scale, *Rec.* X, 861.

Sphæropsis—

albescens, notes, *Rec.* III, 810.
malorum, notes, *Rec.* IV, 401, 656, 658, 929; V, 878; VII, 874; X, 653, 865; XII, 59.
robinæ, notes, *Rec.* VII, 838.
triacanthi, notes, *Rec.* VII, 838.

Sphærostilbe coccophila—

as a parasite of scale insects, *Rec.* IX, 372.
for San José scale, *Rec.* IX, 1068; XI, 654, 761, 1042.
notes, *Rec.* XI, 268; XII, 1057.

Sphærotheca—

castagnei—
 development of perithecia, *Rec.* VII, 564.
 notes, *Rec.* V, 193, 236; IX, 761; X, 971; XII, 859.
epilobii, notes, *Rec.* VI, 305.
mali, notes, *Rec.* V, 989; X, 763; XI, 260; XII, 463.

mors-uvæ—

in Ireland, *Rec.* XII, 573.
notes, *Bul.* 2, I, 145; *Rec.* III, 197; IV, 50; V, 193, 629; VI, 595; VII, 141; VIII, 999.

pannosa—

notes, *Rec.* III, 810; IV, 50; V, 400, 989; VI, 147, 305; VII, 141.
on peach trees, *Rec.* X, 764.

phytophila—

microscopical characters, *Bul.* 2, II, 34.
notes, *Rec.* I, 169.
sp., notes, *Rec.* VI, 560.

Sphagnum atolls in central Minnesota, *Rec.* V, 659.

Sphalangi, relation to anthrax, *Rec.* XII, 597.

Sphæcius speciosus, notes, *Rec.* III, 811.

Sphenophorus—

obscurus, notes, *Rec.* VIII, 506.
ochreus, notes, *Rec.* II, 81; IV, 415; VI, 314.
parvulus—
 description and treatment, *Rec.* III, 889.
 notes, *Rec.* II, 81; IV, 415; VI, 314.
sacchari, notes, *Rec.* X, 975.
sculptilis—
 notes, *Rec.* IV, 57; V, 790; VI, 314; X, 1059.
 treatment, *Rec.* IV, 57.
sordidus, notes, *Rec.* XII, 465.
spp., notes, *Rec.* V, 101; VII, 878.
zeæ, notes, *Rec.* III, 175.

Sphenoptera gemellata, notes, *Rec.* IX, 74.

Sphingidæ—

catalogue, *Rec.* VII, 699.
list of, *Rec.* II, 746.

Sphingids—

enemies of, *Rec.* II, 116.
notes, *Rec.* II, 116.

Sphinxæ—

albescens, notes, *Rec.* X, 867.
catalpæ, notes, *Rec.* IX, 463; XI, 952.
convolvuli, notes, *Rec.* VIII, 711.
gordius, notes, *Rec.* IV, 354.

Sphinx—Continued.*nerii*, notes, Rec. VIII, 711.*pinastris*, notes, Rec. VIII, 711.*Sphinx* moths, notes, Rec. I, 21; II, 664; IV, 354.

Spice—

adulterants, analyses, Rec. XII, 280.

by-products, analyses, Rec. XI, 769.

Spices—

adulteration, Rec. IV, 389; VI, 15; VIII, 521; XI, 510.

analyses, Rec. XII, 280, 586.

examination, Rec. IV, 389; VI, 15, 190.

ground, analyses, Rec. XI, 769.

methods of analysis, Rec. V, 127.

pure, analyses, Rec. XI, 769.

Spider—

beetle—

brown, Rec. IX, 65.

white-marked, Rec. IX, 65.

bites—

and "kissing bugs," Rec. XI, 561.

poisonous nature, Rec. III, 812.

biting, notes, Rec. VI, 740.

egg parasites, notes, Rec. III, 548.

flower, notes, Rec. VIII, 703.

Jamaica, habits of, Rec. V, 926.

webs, floating, Rec. X, 1018.

wort, notes, Rec. IV, 654.

Spiders—

as parasites of the gypsy moth, Rec. III, 870.

harvest, notes, Rec. IV, 852.

new, Rec. X, 273.

of Victoria, Rec. XII, 775.

parasite, Rec. V, 901.

Spike grass—

analyses, Rec. II, 487; VI, 403.

notes, Rec. II, 486.

(See also DISTICHLIS.)

Spike rush, analyses, Rec. VI, 404.

Spillogale, genus, notes, Rec. II, 258.

Spilomena foxii, notes, Rec. IX, 372.*Spilosoma virginica*. (See WHITE ERMINE MOTH.)*Spilothyrus alceæ* (*Hesperium malvarum*), notes, Rec. VII, 791.

Spinach—

analyses, Rec. IV, 59.

anthracnose, notes, Rec. II, 241.

beetle, notes, Rec. II, 81.

black molds, Rec. II, 242.

carrion beetle, Rec. X, 866.

culture, Rec. IX, 357.

culture experiments, Rec. IV, 39; VIII, 313, 783.

dock, notes, Rec. V, 875.

electro-culture, Rec. IV, 351; VI, 809.

fertilizer—

experiments, Rec. V, 171; XI, 543.

formula, Rec. XII, 851.

flea-beetle, notes, Rec. XI, 365.

growth as affected by incandescent gaslight, Rec. XII, 48.

irrigation, Rec. VIII, 783.

leaf blight, notes, Rec. II, 242; III, 307.

leaf maggot, notes, Rec. VIII, 240.

leaf miner, remedies, Rec. IX, 73.

leaf spot, notes, Rec. X, 445.

list of varieties recommended, Bul. 2, II, 90.

mildew, Rec. II, 241; III, 161; IX, 761.

Spinach—Continued.

New Zealand—

culture experiments, Rec. VIII, 700.

notes, Rec. VI, 722; X, 254; XII, 345.

spraying experiments, Rec. XII, 353.

notes, Rec. X, 547; XI, 850.

shading, Rec. XI, 739, 752.

spraying, Rec. XI, 752.

subirrigation, Rec. V, 680.

undetermined disease, Rec. X, 445.

varieties, Rec. VII, 35, 405; VIII, 888, 889, 977.

white smut, Rec. II, 242.

Spindle tree, notes, Rec. IV, 655.

Spined tobacco bug, notes, Rec. VIII, 998.

Spine-headed worm, Rec. IX, 274.

Spintherus, new species, notes, Rec. III, 47.

Spiny aster—

eradication, Rec. IX, 142.

notes, Rec. VI, 732.

Spiny cocklebur, notes, Rec. VI, 822; VII, 689.

Spiny elm caterpillar, notes, Rec. XII, 167.

Spiny nightshade, notes, Rec. III, 217; VI, 224, 551.

Spiræa—*douglasii*, notes, Rec. III, 788; IV, 656.*hypericifolia*, notes, Rec. IV, 656.*japonica*, notes, Rec. IV, 654.*josikæa*, notes, Rec. IV, 656.*lanceolata*, notes, Rec. IV, 656.*obovata*, notes, Rec. IV, 656.*persica*, notes, Rec. IV, 656.*prunifolia*, notes, Rec. IV, 656.*sorbifolia*, notes, Rec. IV, 656.*thunbergii*, notes, Rec. IV, 656.*vanhouttei*, notes, Rec. III, 788; IV, 656; VIII, 314.*Spiræa*—

for ornamental purposes, Rec. IV, 656.

glucosids and enzym in, Rec. XI, 715.

plum-leaved, notes, Rec. IV, 656.

summer propagation, Rec. III, 230.

Spirillum—*desulfuricans*, notes, Rec. VI, 969.*luteum* in the soil, Rec. IV, 448.

n. sp. in water, Rec. IV, 693.

obermeieri, and blood of relapsing fever, Rec. IX, 393.*tyrogenum*, notes, Rec. V, 57, 1047.*Spirillum* disease of geese, cause, Rec. XI, 589.

Spirits—

detection of—

caramel, Rec. XI, 312.

coloring matters, Rec. XII, 823.

from cellulose and wood, Rec. X, 116.

manual of analysis, Rec. XI, 618.

Spirogyra—*longata*, notes, Rec. VII, 225.*nitida*, chemico-physiological study, Rec. IX, 809.*Spirogyra*, study of nucleus and nucleolus, Rec. IV, 692; X, 612.*Spiroptera*—*nasuta*, in fowls, Rec. XII, 294.*strongylina*, notes, Rec. XI, 697.*truncata*, notes, Rec. IX, 1092.

Spittle bug, square, notes, Rec. IV, 839.

Spittle insects, notes, Rec. II, 654.

Spizella socialis, notes, Rec. X, 726.

- Spleen, histology during septicæmia, Rec. XII, 890.
- Splenic fever. (See ANTHRAX.)
- Splitting of fruits and tubers, Rec. X, 519.
- Spodoptera kunzei*, notes, Rec. X, 372.
- Sponge—
analyses, Rec. II, 101; IX, 225.
and sand filters for milk, Rec. IV, 988; V, 1043.
Brazilian, analyses, Rec. VIII, 520.
- Spongopora solani*, notes, Rec. III, 810; XII, 61.
- Spontaneous combustion, Rec. XII, 521.
- Sporadic—
aphtha, studies, Rec. XII, 92.
pneumonia in cattle, Rec. IX, 888.
- Sporangia, development upon fern prothallia, Rec. X, 223.
- Sporangium of ferns, notes, Rec. V, 450.
- Spore—
dissemination by rain, Rec. VIII, 670.
formation—
and structure in bacteria, Rec. XII, 721.
in *Bacillus coli communis*, Rec. VII, 929.
bacteria, Rec. XII, 722.
Dematium pullulans, Rec. XI, 122, 322.
fungi, Rec. XII, 961.
Russian yeasts, Rec. X, 224.
influence of external conditions, Rec. VII, 188.
staining, new method, Rec. V, 1028.
- Spores—
æcidial, germination, Rec. X, 612.
development, Rec. VII, 20.
germination as affected by ether, Rec. X, 1048.
of parasitic fungi, Rec. V, 653.
stinking smut, feeding to animals, Rec. V, 927.
secondary, in anthracnose, Rec. V, 401.
- Sporidia—
fenestrate, notes, Rec. II, 33.
of *Ustilago maydis*, structure, Rec. X, 725.
- Sporidesmium on cucumbers and gourds, Rec. VII, 964.
- Sporobolus*—
airoides, notes, Rec. II, 321; VIII, 306.
argutus, notes, Rec. III, 549.
asperifolius—
analyses, Bul. 2, I, 108.
notes, Rec. II, 321; VI, 403.
bucklei, notes, Rec. III, 549.
cryptandrus, notes, Rec. II, 321; X, 343.
cuspidatus, notes, Rec. II, 321; VI, 403.
depauperatus, notes, Rec. II, 321.
drummondii, notes, Rec. X, 343.
heterolepis, notes, Rec. VI, 403.
indicus, notes, Rec. VI, 694.
interruptus, notes, Rec. III, 549.
palmeri, notes, Rec. X, 516.
plumbeus, notes, Rec. IX, 328.
simplex, notes, Rec. X, 516.
thurberi, notes, Rec. X, 516.
tricholepis, notes, Rec. III, 549.
vaginæflorus, notes, Rec. VI, 403.
wrightii, notes, Rec. III, 549.
- Sporotrichum*—
globuliferum—
for combating chinch bugs, Rec. III, 657, 834; VI, 150; VII, 314; IX, 66.
in combating insects, Rec. XI, 659.
- Sporotrichum*—Continued.
globuliferum—continued.
notes, Rec. VI, 149, 651; VII, 226; VIII, 998; X, 59, 273, 1070; XII, 362.
thermal death point, Rec. XI, 422.
parasiticum, notes, Rec. XI, 357.
- Sporotrichum*, polymorphism of, Rec. VI, 1001.
- Sporozoon—
in cattle, Rec. V, 513.
new species in larvæ of Diptera, Rec. XII, 870.
- Spotted—
cowbane, Rec. VIII, 892.
horn beetle, notes, Bul. 2, I, 179.
gum—
ash analyses, Rec. XII, 39.
notes, Rec. VII, 955; XI, 747.
mite, notes, Rec. III, 91, 241.
paria, notes, Rec. VI, 1008.
vine chafer, Rec. IX, 371.
- Spray—
calendar, Rec. IV, 659; V, 63; VI, 910, 916, 1001; VII, 44, 140, 231, 876, 883, 965; VIII, 140, 141, 149, 318, 412, 995; IX, 75, 458, 852, 961; X, 157, 370, 374, 457, 470; XI, 174, 274, 275, 478, 659; XII, 470, 581.
nozzles, tests, Rec. XII, 578.
pump, cyclone, Rec. XII, 263.
pumps— (See also SPRAYING APPARATUS.)
kerosene attachment for, Rec. VI, 346, 442, 910, 1008; VIII, 414.
tests, Rec. XI, 172.
- Sprayer, homemade, Rec. V, 514.
- Spraying— (See also different fruits, vegetables, etc.)
and watering fruit, apparatus for, Rec. VI, 443.
apparatus—
description and use, Rec. I, 21, 295; II, 33, 162, 168, 247, 303, 653, 654, 659, 660, 718; III, 11, 55, 172, 175, 177, 197, 217, 298, 325, 327, 808, 847, 866, 889; IV, 43, 55, 57, 171, 561, 564, 659, 729, 828, 838, 840; V, 62, 63, 64, 309, 310, 402, 498, 793, 884, 987, 988; VI, 61, 236, 734, 739; VII, 140, 310, 876, 883; VIII, 54, 138, 146, 147, 149, 240, 321, 500, 608, 912; IX, 74, 262, 263, 360, 371, 573; X, 60, 169, 369, 771; XI, 172, 258, 259, 262, 273.
manufactures, Rec. III, 620.
new, Rec. VII, 179; XI, 259, 560.
notes, Rec. XI, 654; XII, 581.
prevention of clogging, Rec. V, 879.
standard fittings for, Rec. III, 327.
tests, Bul. 2, I, 145; Rec. VI, 442; X, 458; XI, 758, 959; XII, 464.
- apple—
orchards, Rec. IV, 561; V, 663, 684; VI, 150, 437, 830; VII, 137, 139, 305; VIII, 240, 608; XI, 167, 258; XII, 1064.
orchards, profits, Rec. V, 683.
arsenical, of fruit trees in blossom, Rec. V, 517.
beans, Rec. XI, 751; XII, 352.
by steam power, Rec. VII, 518; VIII, 558.
causes of failure, Rec. XII, 898.
cherries, Rec. VIII, 240.
crops, Rec. V, 1104.
cucumbers, Rec. X, 454; XI, 257, 270; XII, 353.
currants, Rec. XI, 150.
danger from, Rec. V, 64.
effect on healthfulness of fruit, Rec. IV, 437.
(See also footnote, p. 66.)

Spraying—Continued.

experiments, *Bul.* 2, II, 32; *Rec.* III, 813; V, 1077; VI, 434, 726; VII, 223, 598, 876; VIII, 53, 500; IX, 851.

for wild mustard, *Rec.* XI, 159.

grapes, *Rec.* IV, 828; VII, 141, 876; VIII, 240; IX, 49, 959.

hose, coupling for, *Rec.* V, 926.

instructions, *Rec.* X, 562; XI, 273.

manual, *Rec.* XI, 371.

melons, *Rec.* XI, 270.

notes, *Rec.* IX, 852; XII, 369.

orchards, *Rec.* V, 402, 683, 901; VI, 647, 999; VII, 126, 137, 879; VIII, 53; IX, 457, 471; X, 870; XI, 167; XII, 270.

orchards, profit, *Rec.* VII, 126.

peach trees, *Rec.* V, 787; X, 558.

peas, *Rec.* XI, 752.

pears, *Rec.* V, 877; VII, 139, 147, 788, 791; VIII, 228, 240, 608; XI, 258.

plants, *Rec.* VII, 591.

plums, *Bul.* 2, II, 118; *Rec.* V, 876; VIII, 240.

potatoes, *Rec.* V, 988; VI, 908, 910; VII, 29, 860; VIII, 60, 216, 234; XI, 441.

quinces, *Rec.* V, 684; VII, 138; VIII, 240.

tomatoes, *Rec.* VIII, 225; IX, 56, 250, 569; XI, 752; XII, 352.

trees, *Rec.* VII, 314; VIII, 503; IX, 470, 661; XII, 167.

without a pump, *Rec.* VI, 650.

Spreading—

nightshade, notes, *Rec.* X, 516.

panic, notes, *Rec.* IV, 248.

Spring—

tail, American, *Rec.* IX, 64.

treatment against *Conchyliis*, *Rec.* V, 1100.

water—

analyses, *Rec.* IV, 244; IX, 1098; X, 228; XI, 328.

studies, *Rec.* VIII, 385.

Springs—

flow as affected by forests, *Rec.* XII, 426.

hot, bacteria of, *Rec.* V, 650.

Sprouts and leaves deformed by *Exoasceæ*, *Rec.* VI, 311.

Spruce—

aphis, notes, *Rec.* XI, 562.

bark beetles, *Rec.* X, 1060.

black—

insects affecting, *Rec.* III, 47, 102.

notes, *Rec.* IV, 655; V, 54.

Black Hills—

notes, *Rec.* IV, 829; V, 829.

rate of growth, *Rec.* IV, 45.

blue, notes, *Rec.* II, 143.

bud louse, notes, *Rec.* XII, 580.

canker, notes, *Rec.* XII, 573.

Colorado blue, notes, *Rec.* IV, 655.

Douglas—

in northern Oregon, *Rec.* XI, 456.

notes, *Rec.* IV, 655.

Englemann's notes, *Rec.* IV, 655.

European—

analyses of seeds, *Rec.* XI, 111.

ash analyses, *Rec.* XII, 653.

forests of West Virginia, extent, *Rec.* III, 47.

Spruce—Continued.

gall louse, *Rec.* IX, 368, 371; X, 169.

gall mite, *Rec.* X, 1059.

galls, origin and formation, *Rec.* IX, 852.

insects affecting, *Rec.* XII, 166.

insects affecting, bibliography, *Rec.* XI, 475.

native for avenue planting, *Rec.* XI, 852.

needles, browning, *Rec.* XII, 254.

Norway—

for the plains, *Rec.* XII, 1047.

growing for paper pulp, *Rec.* XII, 456.

notes, *Rec.* II, 143; IV, 655; V, 54; VII, 134; XII, 559.

Patton's notes, *Rec.* VIII, 605.

red rot, notes, *Rec.* XI, 759; XII, 360.

resin ducts and strengthening cells, *Rec.* XII, 827.

Rocky Mountain, notes, *Rec.* XI, 855.

Servian, notes, *Rec.* VIII, 794.

silver, notes, *Rec.* III, 788.

trees—

at Illinois Station, *Rec.* V, 303.

growth, *Rec.* X, 357.

notes, *Rec.* II, 143, 741; VII, 134.

white—

notes, *Rec.* II, 143, 741; III, 788; IV, 655; V, 54.

propagation from seed, *Rec.* III, 229.

woods, planting and thinning, *Rec.* IX, 652.

worm, notes, *Rec.* VI, 313.

Spruces—

at the Kansas Agricultural College, *Rec.* VIII, 794.

Canadian, characteristics, *Rec.* VIII, 605.

notes, *Rec.* VI, 993.

of eastern North America, *Rec.* VIII, 136.

Spumaria alba on timothy, *Rec.* IX, 957.

Spurge—

ornamental, blight, *Rec.* VI, 825.

root system, *Rec.* IV, 46.

Spurry—

analyses, *Rec.* V, 782; VI, 274; VII, 954; XII, 471.

culture, *Rec.* IV, 821.

culture experiments, *Rec.* I, 122; II, 70; VI, 294, 405, 531, 886; VII, 498; VIII, 490; IX, 41.

for green manuring, *Rec.* IV, 822.

jack-pine plains, *Rec.* II, 357.

giant—

analyses, *Rec.* VI, 404.

notes, *Rec.* II, 650.

hay, analyses, *Rec.* IX, 267.

notes, *Rec.* V, 577, 910; XI, 339; XII, 329.

seed—

analyses, *Rec.* IX, 267.

germination tests, *Rec.* VI, 429.

Sputa, bacteria in, *Rec.* VII, 278.

Squash— (*See also* CUCURBITA PEPO and CUCURBITA MAXIMA.)

beetles, notes, *Bul.* 2, I, 101.

borer—

destruction of eggs, *Rec.* IV, 56.

nature of eggs, *Rec.* IV, 56.

notes, *Rec.* III, 309, 327; XI, 363, 952.

remedies, *Rec.* II, 416; III, 812; IV, 56; V, 405; VI, 833, 1005; X, 270; XI, 363, 864.

Squash—Continued.

bug—

bacterial disease, Rec. VII, 316, 791; VIII, 242, 709.

common, notes, Rec. XI, 363.

horned, notes, Rec. X, 767; XI, 363.

notes, Bul. 2, I, 31, 176; Rec. I, 11; II, 419, 496, 654; III, 198; V, 405; VI, 833, 1007; VIII, 242, 321; IX, 446, 458; X, 165, 767; XI, 363, 864, 952; XII, 974.

parasite, Rec. II, 496.

remedies, Rec. I, 11; III, 291; IV, 58; VII, 403; IX, 446.

canned, analyses, Rec. V, 220.

carion beetle, notes, Rec. VI, 654.

downy mildew, Rec. X, 455.

foliage, injuries by arsenites, Rec. II, 216.

ladybird, notes, Rec. XI, 362, 762.

plant louse, notes, Rec. VIII, 505.

root maggot, notes, Rec. IV, 58.

seed, globulins of, Rec. IV, 934.

seeds as affected by anesthetics, Rec. XI, 1056.

tip disease, Rec. VII, 695.

vines, herbaceous grafting, Rec. II, 508.

Squashes—

analyses, Rec. IV, 59.

cross fertilization, Rec. I, 89; II, 509.

culture, Rec. IX, 357.

culture experiments, Rec. VII, 120, 403; VIII, 312, 313, 407.

decay, Rec. V, 401.

fertilizer formula, Rec. XII, 851.

insects—

affecting, Rec. VIII, 147; IX, 160.

remedies, Rec. II, 416.

irrigation, Rec. VII, 403.

Macrosporium disease, new, Rec. VI, 268.

notes, Rec. X, 254, 547; XI, 850.

summer, varieties, Rec. II, 669.

temperatures for germination, Rec. XI, 1056.

varieties, Bul. 2, II, 88; Rec. II, 318, 349, 392, 395, 396, 515, 566, 585, 607; III, 85, 609; IV, 352, 828; V, 189, 790, 870, 871, 982; VI, 55, 142, 219, 548, 727; VII, 124, 213, 403, 405; VIII, 225, 888, 889, 977; IX, 351, 832; X, 639; XI, 51, 631; XII, 329.

varieties, new, Rec. IX, 560.

Squirrel—

digger, notes, Rec. V, 161; VIII, 68.

exterminator, carbon bisulphid, Rec. V, 386.

fleas, notes, Rec. IX, 254.

Squirrel-tail grass— (See also HORDEUM JUBATUM.)

analyses, Rec. VI, 404; VII, 779.

culture experiments, Rec. X, 244.

eradication, Rec. IX, 142.

notes, Rec. IV, 699; V, 306; VI, 57, 224, 640; VII, 778; VIII, 794; X, 760.

Squirrels, new, from western United States, Rec. IX, 1030.

St. Augustine grass, notes, Rec. XI, 154.

St. Elmo's fire, Rec. X, 1018.

St. John's wort—

notes, Rec. IV, 655.

root system, Rec. IV, 45.

shrubby, Rec. X, 552.

St. Louis tornado—

low pressure in, Rec. VIII, 675.

origin, Rec. IX, 531.

St. Lucie grass, notes, Rec. XI, 154.

St. Petersburg, Russia—

Bacteriological Laboratory, report, Rec. X, 322, 1016.

Chemical Laboratory, Rec. VI, 615.

Seed Control Station, report, Rec. XI, 159.

Stable—

fly, notes, Rec. IX, 63; XII, 82.

manure. (See MANURE.)

refuse, analyses, Rec. XII, 626.

waste as a fertilizer, Rec. XII, 37.

Stables—

bacteria in, Rec. IX, 813.

construction, treatise, Rec. XII, 496.

disinfection, Rec. XI, 591.

for cows, Rec. XI, 489.

heating and ventilating, Rec. IX, 388.

illumination, effect on eye diseases, Rec. XI, 893.

ventilating device, Rec. VII, 72.

Stachyose in tubers of *Stachys tuberosa*, determination, Rec. IV, 314.

Stachys—

affinis, notes, Rec. V, 171.

bullata, notes, Rec. III, 598, 599.

floridana, notes, Rec. V, 874.

lanata, notes, Rec. II, 607.

palustris, antiquity of cultivation, Rec. V, 1099.

sieboldii, notes, Rec. V, 874.

tuberosa—

analyses, Rec. III, 618; VII, 498.

chemical study, Rec. III, 655, 741, 231.

culture experiments, Rec. III, 703.

notes, Rec. III, 618, 740.

Stachys—

analyses, Rec. V, 171.

culture experiments, Rec. IV, 39; V, 171.

Stacking, new contrivance for, Rec. V, 130.

Stag beetle, Rec. IX, 964.

Stag beetle borer, notes, Rec. II, 419.

Staggerbush, notes, Rec. X, 516.

Staggers—

in horses, Rec. III, 42, 388.

mules, Rec. III, 42.

sheep, Rec. II, 79; X, 694; XII, 294.

Stagmomantis carolina, notes, Rec. III, 811.

Stagonospora—

baccharidis, notes, Rec. IV, 956.

spinacea, notes, Rec. III, 810; IV, 50.

Staining spores, new method, Rec. V, 1028.

Stains for the study of meristem, Rec. V, 1028.

Stalk borer, notes, Rec. II, 654; IV, 839; VI, 312, 314; VII, 144, 879; VIII, 613.

Stalk fly, yellow, remedies, Rec. VIII, 69.

Stall for cows, Rec. XI, 285, 389.

Stamens and carpels, variation in number, Rec. VII, 467.

Standard—

acid solutions, Rec. VII, 185.

cooking book, Rec. XI, 380.

dairy feed, analyses, Rec. V, 312; XI, 279.

gravity, international, Rec. X, 1018.

Standard—Continued.

- solutions, apparatus for, Rec. VI, 869.
- time, Rec. XII, 831.

Standardization—

- and valuation of permanganate solutions, Rec. VIII, 667.

of acid solutions, Rec. VI, 182.

- Fehling's solution, Rec. V, 433; VI, 111.
- normal acid by borax, Rec. VII, 745.
- potassium permanganate, Rec. VII, 653; VIII, 743.
- solutions, Rec. VII, 91, 366; XI, 22.
- sulphuric acid, Rec. VII, 653.

Standardized saccharimeter, Rec. XI, 112.

Standardizing solutions in acidimetry and alkalimetry, Rec. V, 253.

Staphylea trifolia, notes, Rec. III, 521.*Staphylococci* in human milk, Rec. V, 1048.*Staphylococcus*—

- hemorrhagicus*, notes, Rec. IX, 693.
- insectorum*, notes, Rec. VIII, 909.
- pyogenes aureus*—
- antiseptics for, Rec. IV, 74.
- immunization, Rec. X, 192.
- notes, Rec. VI, 18; IX, 1092.

Star apple, notes, Rec. VI, 636.

Star thistle—

- false, notes, Rec. VI, 145.
- notes, Rec. X, 343.

Starch—

- action of diastase on, Rec. V, 538.
- analyses, Rec. IV, 59.
- and skim milk for calves, Rec. IX, 874; X, 780.
- as affected by—
- chloroform, Rec. VIII, 286; IX, 25.
- diastase, Rec. V, 538, 648; VII, 279, 833; VIII, 472, 742; IX, 120, 220, 225, 418.
- enzymic ferments, Rec. VIII, 662.
- oxalic acid, Rec. VII, 366.
- as food, Rec. IV, 389.
- chemistry, Rec. IX, 418.
- constitution, Rec. XI, 814.
- content—

- and density of potatoes, Rec. V, 728.
- of corn as affected by storing, Rec. XI, 293.

- potatoes, Rec. I, 13; III, 357; IV, 389, 449; V, 128, 1017; VI, 140, 536, 720; VII, 765, 955; VIII, 120, 122, 125, 223, 596, 682; IX, 239, 643, 899, 981; X, 43, 847, XII, 141, 144, 907.

(See also POTATOES.)

- sweet potatoes, Rec. IX, 619, 695.
- trees, variation, Rec. XI, 28.

decomposition products, Rec. VII, 738.

determination, Rec. III, 831, 924; IV, 313; V, 475; VI, 190, 373, 374, 691, 866; XI, 417.

determination in—

- cereals, Rec. IX, 25, 418; X, 314.
- coarse fodders, Bul. 2, II, 66.
- compressed yeast, Rec. VI, 15; VII, 71.
- corn, Rec. II, 589.
- feeding stuffs, Rec. VI, 184.
- flour, Rec. X, 314.
- foods, Rec. II, 589; VIII, 203.
- grains, Rec. X, 17, 20, 314.

Starch—Continued.

determination in—continued.

- mash, Rec. V, 477.
- meat products, Rec. VIII, 199.
- mustard seed, Rec. X, 607.
- sausage, Rec. VIII, 562; IX, 1024.
- dextrinous compounds, Rec. VII, 914.

diastatic—

- decomposition, Rec. VII, 365.
- inversion, Rec. III, 924.

digestibility, Rec. X, 184.

digestion, Rec. IV, 518.

digestion—

- and value as a nutrient, Rec. VIII, 155.
- in plants, Rec. XI, 321.

distribution—

- as affected by fungi, Rec. X, 923.
- in trees during winter, Rec. III, 417.

effect on composition of butter, Rec. IV, 663.

factory refuse as a feeding stuff, Rec. IV, 519.

feed, kiln-dried, analyses, Rec. IV, 935.

feeds, analyses, Rec. I, 15; V, 194; VI, 331; VII, 702; XI, 279; XII, 70, 169.

for fixing iodine, Rec. IV, 313; V, 1026.

recognition of margarine, Rec. VIII, 742.

formation, Rec. V, 345.

formation—

- and distribution in trees, Rec. XI, 117.
- in angiosperms, Rec. V, 434.
- barley and malt, Rec. IX, 329; X, 223, 417.
- plants, Rec. VII, 275.
- potatoes. (See POTATOES.)
- of furfural from, Rec. X, 412; XI, 619.

fuel value, Rec. III, 386; XII, 1072.

grain, studies, Rec. X, 417.

grains—

- artificial, preparation, Rec. IX, 115.
- encapsuling, Rec. VIII, 957.
- structure, Rec. V, 434.
- hydrolysis, Rec. IX, 22, 418.
- in animal metabolism, Rec. VII, 336; VIII, 321, 616.
- embryo sac of cactus and Mesembrianthemum, Rec. VII, 277.

in plants—

- during winter, Rec. VII, 926.
- solution, Rec. IV, 388.

in potatoes and grains, Rec. V, 476.

- sprouting potatoes, transfer, Rec. IV, 871, 959.

industry in the United States, Rec. VII, 809.

inversion by pancreatic ferments, Rec. VII, 644.

iodine reaction, Rec. VI, 615.

manufacture—

- from maize in Russia, Rec. X, 897.
- potatoes and cassava, Rec. XII, 994.
- rice, Rec. IV, 988.
- sweet potatoes, Rec. IX, 196, 895, 1095; X, 999.

recent progress, Rec. XII, 612.

mold ferments, Rec. VIII, 960.

noncrystallizable products of diastase action, Rec. IV, 516.

notes, Rec. XII, 309.

nutritive value, Rec. XI, 771.

Starch—Continued.

- origin and life history, *Rec. VII*, 188.
- oxidation, *Rec. III*, 924.
- paste, *Rec. VII*, 364.
- permanent stain, *Rec. X*, 519.
- preparations, examination, *Rec. IV*, 389.
- products—
 - hydrolyzed, carbohydrates in, *Rec. IX*, 620.
 - oxidation, *Rec. IV*, 313.
- quantitative determination in foods, *Rec. VIII*, 203.
- rapid determination, *Rec. VI*, 775.
- reaction with—
 - ferrous iodid, *Rec. III*, 748.
 - iodin, *Rec. V*, 817.
- refractive index of different kinds, *Rec. XI*, 511.
- refuse, analyses, *Rec. IV*, 174.
- rice and buckwheat, distinction between, *Rec. V*, 1101.
- saccharification, *Rec. XI*, 706, 715.
- saccharification by—
 - amylase of malt, *Rec. X*, 116.
 - diastase, *Rec. IX*, 418.
- sirup, food value, *Rec. XII*, 476.
- soluble—
 - absorptive power, *Rec. VIII*, 566.
 - determination, *Rec. IX*, 806.
 - in leaves of Cola, *Rec. IX*, 329, 421.
 - preparation, *Rec. VIII*, 857.
 - rotation, *Rec. IX*, 225, 418.
- solution—
 - preparation, *Rec. V*, 461; *VIII*, 857.
 - preservation, *Rec. VI*, 868.
- studies, *Rec. VII*, 271.
- sugar, food value, *Rec. XII*, 476.
- transformation—
 - by diastase, *Rec. V*, 648.
 - into dextrin and maltose, *Rec. VI*, 965.
 - into sugar, *Rec. VI*, 775.
- volumetric determination, *Rec. VII*, 272.
- waste—
 - analyses, *Rec. III*, 162.
 - for cows, *Rec. II*, 592.

Starches, commercial analysis, *Rec. X*, 116.

Starfish—

- analyses, *Rec. X*, 935.
- ashes, analyses, *Rec. X*, 716.

Starling—

- notes, *Rec. XI*, 426.
- red-winged, *Rec. IX*, 670.

Starry grasswort, notes, *Rec. X*, 1043.

Stars—

- heat radiation, *Rec. XI*, 819.
- shooting, *Rec. XI*, 221.

Starters—

- for butter and cheese making, *Rec. XII*, 388.
- pure culture, use, *Rec. XI*, 87.

Starworts, notes, *Rec. IX*, 358.

Stassfurt—

- potash—
 - salt mines, *Rec. XII*, 934.
 - salts, production in 1899, *Rec. XII*, 130.
 - salts, statistics, *Rec. XII*; 737.
- salt deposits, formation, *Rec. XI*, 704.
- salts, potash in, *Rec. IX*, 223.

State—

- agents, reports, *Rec. VI*, 486.
- control of contagious diseases, *Rec. XI*, 591.
- dairy commissioners in United States and Canada, *Rec. VIII*, 265; *IX*, 590.
- Weather Service, functions, *Rec. V*, 1086.
- Weather Services—
 - American Association, *Rec. VIII*, 34, 111.
 - importance and equipment, *Rec. VIII*, 111.

Station—

- and college officers, index to names, *Rec. VII*, 433.
- bulletin, mission, *Rec. VII*, 433.
- farms, management, *Rec. VIII*, 554.
- for repression of nematodes, Halle, report, *Rec. III*, 656, 820; *IV*, 970.
- horticulturists, duties, *Rec. VII*, 174.
- officers, attendance at annual convention, *Rec. VI*, 486.
- publications—
 - improvement, *Rec. VIII*, 177.
 - uniformity, *Rec. VII*, 173.
- work, unfortunate tendencies, *Rec. IX*, 601.

Stations. (*See* EXPERIMENT STATIONS.)

Statistician's reports, index, *Rec. IX*, 599.

Statistics—

agricultural—

- of British India, *Rec. IX*, 999.
- Buenos Ayres, *Rec. IX*, 198.
- Cape of Good Hope, *Rec. IX*, 999.
- Costa Rica, 1893, *Rec. VI*, 347.
- Denmark, *Rec. IV*, 779; *IX*, 98.
- foreign trade, *Rec. XI*, 296.
- Germany, *Rec. IX*, 198.
- Great Britain, *Rec. III*, 659, 835; *V*, 133; *VII*, 340; *VIII*, 93; *IX*, 198, 497; *XI*, 296; *XII*, 399.
- Hungary, *Rec. IX*, 499.
- Idaho, *Rec. IX*, 398.
- India, *Rec. V*, 221.
- Indiana, *Rec. IX*, 698.
- Iowa, *Rec. IX*, 698.
- Ireland, *Rec. IX*, 698.
- Michigan, *Rec. IX*, 799.
- New Zealand, *Rec. IX*, 198; *XII*, 898.
- Norway, *Rec. VII*, 811.
- Ontario, *Rec. IV*, 991; *VII*, 812; *IX*, 699, 799; *X*, 999.
- Prussia, *Rec. V*, 262, 1033.
- Russia, *Rec. X*, 298.
- Scotland, *Rec. IX*, 98.
- South Australia, *Rec. IX*, 999, 1099.
- Tasmania, *Rec. IX*, 298.
- Texas, *Rec. IX*, 699.
- the United Kingdom, *Rec. V*, 221.
- Uruguay, *Rec. VI*, 87.
- Virginia, *Rec. IX*, 699.

meteorological, improvement, *Rec. XI*, 127.

of agricultural institutions in Russia, *Rec. X*, 298.

beet-sugar industry, *Rec. II*, 181.

fruit growing in New Jersey, *Rec. VIII*, 886.

land-grant colleges and agricultural experiment stations, *Rec. I*, 117; *II*, 309, 471; *III*, 439; *IX*, 701, 1099; *X*, 1001; *XI*, 397, 801; *XII*, 298.

Statistics—Continued.

- of the dairy, Rec. VIII, 162.
- world's production of cereals, Rec. X, 298.
- official, of foreign crops, Rec. V, 1005.
- value to farmers, Rec. X, 197.

Steam—

- at low pressure for greenhouses, Rec. XI, 155.
- drills, Rec. IX, 797.
- power for improvement of agricultural industries, Rec. VII, 258.
- sterilization of soils for destroying nematode worms, Rec. X, 1056.
- v.* animal power for cultivation, Rec. XI, 1039.
- hot water for heating greenhouses, Rec. I, 82, 225; IV, 348; V, 295; VI, 424; VII, 400, 585.

Stearic acid—

- in butter, Rec. V, 954.
- fats, determination, Rec. VIII, 666, 861.

Stearin—

- effect on properties of butter, Rec. V, 974.
- for cows, effect on butter, Rec. IV, 664.
- fuel value, Rec. III, 386.

Steatite, powdered, for leaf spot of quinces, Rec. IV, 929.

Steel—

- determination of phosphorus, Rec. X, 314.
- for framework of barn, Rec. XI, 294.
- track wagon roads, Rec. XI, 197, 498.

Steers—

- alfalfa and sorghum for, Rec. IV, 936; XII, 1074.
- alfalfa hay—
 - alone for, Rec. IV, 936; VIII, 517; XII, 1074.
 - and beets for, Rec. VIII, 517.
 - sugar beets for, Rec. VIII, 815.
 - different cuttings for, Rec. XI, 663.
 - for, Rec. IV, 936; VI, 240; VIII, 516; XI, 663; XII, 173, 670.

Angus—

- v.* natives for beef production in Mississippi, Rec. XII, 282.
- Shorthorns for beef, Rec. VII, 599.

balanced rations for, Rec. VIII, 1006.

barley—

- and beets for, Rec. VIII, 517.
- for, Rec. III, 129; VIII, 517; X, 671.
- v.* bran and shorts for, Rec. X, 671.

beet—

- and potato residue for, Rec. III, 571.
- diffusion residue, ensiled *v.* dry, for, Rec. III, 650.
- diffusion residue, wet *v.* dry, for, Rec. III, 650.
- pulp for, Rec. III, 570.
- residue for, Rec. III, 570.

blanketing *v.* not blanketing, Rec. III, 806.

brewers' grains, dried, as a substitute for hay, Rec. X, 1078.

brome grass hay for, Rec. XI, 876.

cassava for, Rec. XII, 779.

cat-tail millet for, Rec. V, 1081.

chops—

- for, Bul. 2, I, 187.
- with cowpea and shuck for, Bul. 2, I, 187.
- clover, first *v.* second crop, for, Rec. III, 41.

Steers—Continued.

clover hay—

- and cotton-seed meal for, Rec. IX, 168.
- cut *v.* uncut, for, Rec. III, 512.
- for, Rec. III, 41, 512.

cocoa shells for, Rec. XII, 582.

corn-and-cob meal—

- for, Rec. I, 210; III, 162; XI, 1068.
- v.* corn for, Bul. 2, I, 187; Rec. I, 210.
- wheat for, Rec. VIII, 811.

corn—

- and silage for, Rec. VIII, 77.
- stover for, Rec. V, 599; VIII, 1007.
- blades for, Rec. IX, 76.
- dry *v.* soaked, for, Rec. VI, 571.
- for, Rec. III, 179, 284; IV, 475; XII, 670.
- v.* barley for, Rec. VIII, 517.
- corn meal for, Rec. III, 179.
- ground corn for, Rec. XII, 672.
- Kafir corn for, Rec. IX, 973.
- peas for, Rec. XI, 665.

corn fodder—

- and alfalfa hay for, Rec. XII, 1074.
- turnips for, Rec. IX, 868.
- finely ground for, Rec. IX, 76.
- for, Rec. III, 162, 392.
- shredded for, Rec. IX, 76, 168.
- v.* silage for, Rec. III, 412.

corn meal—

- and alfalfa hay for, Rec. XII, 670.
- Kafir corn stover for, Rec. XII, 670.
- stover for, Rec. VIII, 1007.
- for, Bul. 2, II, 43; Rec. III, 179, 572; IV, 475; V, 1081.
- molasses, and corn stover for, Rec. V, 599.
- v.* barley meal for, Rec. XII, 878.
- grass for, Rec. VI, 452.
- linseed meal for, Rec. V, 69.
- wheat bran for, Bul. 2, II, 82.
- wheat meal for, Rec. VIII, 77.

corn shives for, Rec. IX, 76.

corn silage—

- and straw for, Rec. VI, 451.
- for, Rec. III, 129, 162; IV, 154, 607; V, 632; VIII, 916.
- v.* clover hay for, Rec. IV, 154.
- corn fodder for, Rec. III, 412; IV, 69, 738; VI, 570; VIII, 77.
- hay and roots for, Rec. IV, 608; VI, 450.
- soy bean silage for, Rec. V, 687.

corn stover for, Rec. III, 162.

cost—

- of feeding, Rec. XII, 80.
- wintering in Mississippi, Rec. XII, 282.
- ton seed—
- and cowpea hay for, Rec. VI, 923; VIII, 427.
- cooked and raw, for, Rec. I, 153; XII, 878.
- for, Rec. I, 153; III, 284; IV, 254; V, 923; VII, 985; VIII, 427; XI, 397, 1068; XII, 670, 698.
- raw, for, Rec. V, 602.
- v.* cotton-seed meal for, Rec. XII, 878.
- cotton-seed products for, Rec. X, 673.
- linseed cake for, Rec. XII, 478.
- cotton-seed cake for, Rec. VIII, 822.

Steers—Continued.

- cotton-seed hulls—
 - and meal for, Rec. III, 710, 711; V, 602; VII, 702; IX, 269; XII, 473.
 - boiled and roasted for, Rec. V, 602.
 - for, Rec. I, 9, 153; III, 284; IV, 254.
- cotton-seed meal—
 - and maize for, Rec. III, 572.
 - for, Rec. I, 153; III, 284, 391, 572; IV, 254; IX, 168; XI, 1068; XII, 672.
- cotton-seed products—
 - best proportions for, Rec. IX, 269.
 - for, Rec. I, 153; III, 284; IV, 254; VI, 921; VII, 413; X, 673; XII, 670.
- cowpea hay—
 - and cotton-seed meal for, Rec. IX, 168.
 - for, Rec. VI, 240, 923.
 - v. Johnson grass for, Rec. XII, 878.
- crab-grass hay and cotton-seed meal for, Rec. IX, 168.
- crimson-clover hay for, Rec. V, 1081.
- dehorning, Rec. I, 153; XI, 1070; XII, 599.
- digestion experiments, Bul. 2, II, 128; Rec. I, 190, 296; IV, 736; V, 1081; VIII, 509, 1005; X, 179, 669, 982, 983, 1081; XI, 277, 381; XII, 779.
- digestion experiments with cassava, Rec. XII, 779.
- effect—
 - of cotton-seed products on flesh and fat, Rec. III, 284.
 - feed on carcass and internal organs, Rec. V, 70.
 - rations on beef, Rec. IV, 69, 477; V, 236, 600; VIII, 518.
 - rations on composition of carcass, Rec. VIII, 811.
- fattening Shorthorns v. scrubs, Rec. VII, 600.
- feeding—
 - experiments, Rec. I, 321; II, 411; III, 399; V, 1032; X, 574, 882; XI, 480, 874, 876; XII, 80, 371, 587, 588, 671, 672, 779, 878.
 - experiments at Colorado Station, summary, Rec. IX, 971.
 - experiments at Kansas Station, summary, Rec. VIII, 268; IX, 88.
 - experiments at Massachusetts Station, summary, Rec. VII, 323.
 - experiments at Wisconsin Station, summary, Rec. VII, 614.
 - experiments, summary, Rec. V, 891.
 - for profit in Texas, Rec. I, 152.
 - in Colorado, Rec. VIII, 515.
 - deep stalls and ordinary stalls, Rec. X, 573.
 - Idaho, Rec. XII, 670.
 - Massachusetts, Rec. III, 162; IV, 478; V, 198; VI, 318; VII, 322.
 - Minnesota, Rec. VIII, 246; XI, 175.
 - North Dakota, Rec. X, 671.
 - Oregon, Rec. VII, 236.
 - pens v. stalls, Rec. XII, 875.
 - stables v. sheds, Rec. IV, 609; VIII, 77.
 - stalls v. open yards, Rec. IV, 475.
 - Wyoming, Rec. VIII, 815.
 - light, medium, and heavy rations, Rec. X, 672; XI, 664; XII, 372.

Steers—Continued.

- feeding—continued.
 - one-year-old v. two-year-old, Rec. III, 162; VI, 450.
 - range, Rec. XI, 175; XII, 672.
 - tied v. loose, Rec. IV, 609; V, 687.
 - twice v. three times daily, Rec. V, 77.
 - two-year-old v. three-year-old, Rec. V, 686; VII, 603.
- finishing off—
 - on grass, Rec. VIII, 77.
 - increasing carbonaceous rations, Rec. V, 69.
 - increasing nitrogenous rations, Rec. V, 69.
- fish meal for, Rec. VII, 708; VIII, 521.
- frozen wheat and barley for, Rec. VI, 452.
- gluten meal for, Rec. III, 162.
- grain—
 - alone for, Rec. IV, 841.
 - for, Rec. VI, 747.
 - ration with pasture, Bul. 2, II, 45.
 - rations, light, medium, and heavy for, Rec. VIII, 246; X, 277.
- grazing on corn and cowpea field, Rec. XI, 965.
- green fodder for, Rec. V, 633.
- hay for, Rec. II, 646; III, 179; V, 633.
- hay and turnips—
 - ad libitum for, Rec. IX, 868.
 - for, Rec. IV, 440; IX, 869.
- Hereford, feeding tests, Rec. II, 360.
- Holstein, feeding experiments, Rec. II, 360.
- inoculation with tuberculin, Rec. IV, 987.
- jack-bean meal for, Rec. IX, 168.
- Johnson grass hay for, Rec. V, 1081.
- Kafir corn fodder and alfalfa hay for, Rec. XII, 1074.
- Kafir corn meal—
 - and alfalfa hay for, Rec. XII, 670.
 - Kafir corn stover for, Rec. XII, 670.
 - v. corn meal for, Rec. IX, 973; XI, 1069.
- Liebig's meat meal v. cotton-seed meal for, Rec. XII, 373.
- linseed cake—
 - for, Rec. V, 599; X, 773.
 - v. dried brewers' grains for, Rec. IX, 166.
 - with other grains for, Rec. X, 773.
- linseed meal—
 - for, Rec. III, 162; VII, 523.
 - v. corn meal for, Rec. V, 69.
 - gluten meal for, Rec. VIII, 77.
- maintenance rations for, Rec. X, 1079.
- mangel-wurzels for, Rec. V, 633; XI, 773.
- manure from—
 - loss in drying, Rec. V, 28.
 - value, Rec. XII, 229.
- marsh hay v. mixed straw for, Rec. XI, 876.
- metabolism experiments, Rec. IX, 167; X, 669, 1081; XI, 770; XII, 1071.
- mixed grains for, Rec. VIII, 75.
- mixed hay alone for, Rec. VI, 747.
- mixed rations for, Rec. V, 599; VI, 321.
- molasses—
 - for, Rec. X, 772.
 - peat and bran for, Rec. X, 573.
- nitrogenous rations for, Rec. V, 236.

Steers—Continued.

- nitrogenous *v.* carbonaceous rations for, **Bul. 2, II, 43; Rec. III, 391; IV, 475; V, 599, 601; VIII, 811; XII, 671.**
- nutritive ratio of rations, **Rec. III, 575.**
- oat sheaves, cut, *v.* native hay for, **Rec. X, 881.**
- oats for, **Rec. III, 129, 391.**
- oats, ground, for, **Rec. V, 633.**
- pea meal for, **Rec. III, 129; V, 633.**
- peanut cake for, **Rec. IV, 608.**
- peanut-vine hay for, **Rec. V, 1081.**
- plants for pasture, **Rec. XII, 629.**
- potatoes for, **Rec. V, 540; VIII, 822.**
- profit in feeding, **Rec. I, 154.**
- rations for, **Bul. 2, II, 44; Rec. V, 195, 237, 243, 601.**
- rations, well balanced *v.* poorly balanced, for, **Rec. VII, 977.**
- relative profits—
 - as compared with feeding oxen, **Rec. IV, 254.**
 - from feeding calves, yearlings, two-year-old, and three-year-old, **Rec. IV, 609.**
- roots—
 - for, **Rec. VI, 747.**
 - v.* dried food for, **Rec. IV, 485; VI, 570.**
- selection for fattening, **Rec. V, 241.**
- shelter—
 - in fattening, **Rec. I, 154.**
 - v.* outdoor fattening in winter, **Rec. I, 210; V, 71, 195, 599; VIII, 1006.**
- shrinkage—
 - in dressing, **Rec. V, 70.**
 - slaughtering, **Rec. VI, 321.**
- silage—
 - and grain for, **Bul. 2, I, 205.**
 - turnips for, **Rec. IX, 868, 869.**
 - for, **Bul. 2, I, 205; Rec. I, 153, 210; II, 646; III, 129, 162, 179; IV, 154, 440; VI, 747; VIII, 517.**
 - for, summary of experiments, **Rec. IV, 154.**
 - Robertson, for, **Rec. VIII, 916.**
 - v.* dry fodder for, **Rec. I, 251; VI, 570.**
 - dry food for, **Rec. I, 250; IV, 738; VI, 570.**
 - hay for, **Rec. III, 179.**
 - roots for, **Rec. IV, 607.**
- slaughter experiments, **Rec. V, 238; IX, 165.**
- soiling, **Rec. IV, 355.**
- soiling *v.* pasturage, **Rec. VI, 319.**
- sorghum—
 - and alfalfa hay for, **Rec. IV, 936; XII, 1074.**
 - bagasse for, **Rec. V, 1081.**
 - fodder for, **Rec. V, 1081.**
 - for, **Rec. IV, 936.**
 - hay for, **Rec. XII, 475.**
- soy bean—
 - hay for, **Rec. V, 1081.**
 - silage alone for, **Rec. V, 687.**
- storage of albuminoids by, **Rec. IV, 70.**
- sugar beets—
 - for, **Rec. III, 162.**
 - v.* grain for, **Rec. VIII, 815.**
- test—
 - of breeds, **Bul. 2, II, 45; Rec. I, 84; II, 360; III, 131, 391; V, 69, 633; VIII, 246.**
 - grades, **Rec. III, 741; X, 672.**

Steers—Continued.

- timothy for, **Bul. 2, II, 43; Rec. I, 210; VI, 240.**
- turnips for, **Rec. V, 633; IX, 869.**
- v.* heifers for beef, **Rec. VI, 321; IX, 82; X, 197.**
- wheat—
 - and barley as substitutes for oil cake for, **Rec. VIII, 248.**
 - bran for, **Rec. III, 162, 391; V, 633.**
 - sheaf, for, **Rec. VIII, 918.**
 - straw for, **Bul. 2, II, 43.**
 - straw *v.* oat straw for, **Rec. XII, 588.**
 - v.* corn-and-cob meal for, **Rec. VIII, 811.**
 - cotton-seed cake, rye, and potatoes for, **Rec. VIII, 822.**
- wild hay for, **Rec. VI, 240.**
- winter feeding, **Rec. XI, 176.**
- with and without exercise, **Rec. III, 806.**
- Steganoptycha*—
 - abiegana* injuring firs, **Rec. VIII, 912.**
 - pinicolana*, notes, **Rec. VII, 146.**
 - pyricolana*, notes, **Rec. III, 54.**
- Steirosstoma depressum*, notes, **Rec. VI, 838.**
- Stellaria*— (See also CHICKWEED.)
 - media*—
 - nitrogen in, **Rec. VI, 202.**
 - notes, **Rec. III, 308, 598,**
 - root system, **Rec. IV, 46.**
 - montana*, notes, **Rec. III, 103.**
- Stellatææ*, morphology and development, **Rec. VII, 748.**
- Stem—
 - and root galls, notes, **Rec. VI, 557.**
 - grafting, movement of sap in, **Rec. VI, 617.**
 - ringing, effect on broad-leaved deciduous trees, **Rec. VIII, 864.**
- Stenophyllum butyri* in butter, **Rec. XII, 656.**
- Stems—
 - and roots, modifications, **Rec. VII, 748.**
 - decorticated, absorption of water by, **Rec. XII, 720.**
 - deprived of leaves, assimilative tissue, **Rec. IX, 227.**
 - formation of tissues, **Rec. XII, 1014.**
 - in phanerogams, morphology, **Rec. XII, 912.**
 - of grass, abnormal growth, **Rec. VIII, 471.**
 - plants, absorption of solutions, **Rec. XI, 815.**
 - replacement by branches, **Rec. X, 223.**
 - woody, porosity, **Rec. VII, 563.**
- Stenobothrus maculipennis* on cranberry bogs, **Rec. IV, 565.**
- Stenocorus pulator*, injuring oaks, **Rec. VIII, 70.**
- Stenoscelis brevis*, notes, **Rec. X, 168.**
- Stenotaphrum americanum*, notes, **Rec. II, 259.**
- Stephanurus dentatus*, notes, **Rec. IV, 749; IX, 274.**
- Steppes—
 - causes of treeless condition, **Rec. XII, 838.**
 - deserts, and alkali lands, **Rec. VII, 664.**
- Sterculia acuminata*, notes, **Rec. VIII, 231.**
- Sterigmatocystis*—
 - nigra*, development as affected by deleterious agents, **Rec. XI, 910.**
 - ochraceus*, notes, **Rec. IX, 1027.**
- Sterility—
 - of cattle, causes, **Rec. XI, 289.**
 - crucifers, **Rec. VIII, 566.**

Sterilization—

- apparatus, Rec. V, 254, 440, 541, 656, 897, 1033, 1050, 1051; VII, 155, 529, 660; X, 1005.
- by heat and high pressure, Rec. X, 123.
- means of hot air, Rec. V, 345.
- for prevention of foul brood of bees, Rec. XI, 61.
- new method, Rec. IX, 628.
- of dairy utensils, Rec. XI, 188.
- fruit musts, Rec. IX, 25.
- human excrement, effect on soil and plants, Rec. IX, 35, 740.
- milk. (See MILK STERILIZATION.)
- musts and yeasts, Rec. X, 322.
- soil for hothouse pests, Rec. XI, 361.
- water, Rec. V, 1028; VI, 196.
- water—

- apparatus for, Rec. V, 345; VI, 504.
- by heat, Rec. XI, 826.
- ozone, Rec. XI, 133, 328, 718; XII, 926.
- wines, Rec. II, 99; V, 214.
- with formalin, Rec. XI, 469.

Sterilized milk. (See MILK, STERILIZED.)

Sterilizer—

- milk and water, new, Rec. V, 897.
- steam, Rec. X, 265, 520.

Sterilizing—

- bottles, stoppers for, Rec. V, 1051.
- meaning of the term, Rec. V, 1049.

Stibadium spumosum, notes, Rec. VI, 440.

Stichococcus bacillaris, on greenhouse plants, Rec. XI, 906.

Stickseed, root system, Rec. IV, 46.

Stickweed—

- analyses, Rec. III, 629.
- narrow-leaved, notes, Rec. V, 398.

Sticky cockle, notes, Rec. VII, 872; VIII, 703.

Stifle joint, chronic arthritis, Rec. XI, 191.

Stigmaeus, notes, Rec. XII, 469.

Stigmonose, notes, Rec. XII, 460.

Stilbospora varneyana, notes, Rec. IV, 956.

Stilbum—

- buqueti*, notes, Rec. IX, 263.
- flavidum*, notes, Rec. X, 560; XI, 362.
- nanum*, notes, Rec. X, 971.

Still heads for fractional distillation, Rec. XI, 511.

Still wines, addition of carbonic acid, Rec. VIII, 348.

Stillingia sebifera, notes, Rec. VIII, 231.

Stimuli, responses of plants to, Rec. VIII, 670.

Stinging nettle for fiber, Rec. VI, 207.

Stinging slug, notes, Rec. II, 101.

Stink bush as an insecticide, Rec. V, 514.

Stink grass. (See CANDY GRASS.)

Stinking smut, spores of, feeding to animals, Rec. V, 927.

Stinking wattle—

- analyses, Rec. IX, 844.
- ash analyses, Rec. X, 20.

Stinkweed—

- California, notes, Rec. VII, 407.
- notes, Rec. IX, 453, 758.

Stinkwort, notes, Rec. VII, 511, 690.

Stipa—

- comata*, notes, Rec. II, 321.
- coronata*, notes, Rec. IV, 498; IX, 348.
- emmens*, notes, Rec. IV, 498.

Stipa—Continued.

- flexuosa*, notes, Rec. II, 259.
- kingii*, notes, Rec. IV, 498.
- minor*, notes, Rec. X, 516.
- mongolica*, notes, Rec. II, 321.
- nelsoni*, notes, Rec. X, 516.
- occidentalis*, notes, Rec. IV, 498; IX, 348.
- parishii*, notes, Rec. IV, 498.
- pennata*, notes, Rec. III, 549.
- robusta*, notes, Rec. XII, 436.
- scribneri*, notes, Rec. III, 549.
- setigera*, notes, Rec. IV, 498.
- spartea*—

- affecting sheep, Rec. XII, 95.
- notes, Rec. I, 168; II, 321; IV, 699.

speciosa, notes, Rec. IV, 498; IX, 348.

stillmani, notes, Rec. IV, 498.

stricta, notes, Rec. IV, 498; IX, 348.

viridula, notes, Rec. II, 321; VI, 403.

williamsii, notes, Rec. X, 516.

Stipa, species and varieties, Rec. VII, 466.

Stippen of apples, nature, Rec. III, 926.

Stipules—

- form and functions, Rec. VII, 277.
- in paleobotany, Rec. VI, 487.
- nature and origin, Rec. X, 519.

Stirrer—

- autopneumatic, Rec. VIII, 106.
- for phosphate solutions, Rec. VI, 110, 615.
- laboratory, Rec. IX, 116.

Stirring—

- and precipitating apparatus, Rec. VII, 15.
- shaking apparatus, Rec. VII, 273.
- apparatus, Rec. IX, 116.

Stoat, notes, Rec. XI, 426.

Stock—

- and graft, symbiosis, Rec. VII, 188.
- scion, reciprocal effect, Rec. X, 637; XI, 249, 345, 850.

corn cockle poisonous to, Rec. XII, 911.

breeding, progress, Rec. XII, 478.

corn fodder for, Bul. 2, II, 38.

dangers in feeding grain, Rec. XII, 478.

diseases in Florida, Rec. IV, 360.

effect on scion, Rec. IX, 136.

feed, analyses, Rec. XII, 282.

feeding, Rec. XII, 677.

feeding—

- aim and methods, Rec. V, 663.
- as related to beet-sugar industry, Rec. XI, 535.

experiments, Rec. X, 433.

experiments, significance, Rec. X, 711.

general principles, Rec. XII, 877.

guide, Rec. IV, 665, 935; VII, 155.

in North Carolina, Rec. XI, 497.

the winter of 1893-94, Rec. V, 349.

methods, Rec. VII, 177.

notes, Rec. II, 192, 423; VI, 573, 663, 752; VII, 985.

practical, Rec. V, 1085.

principles, Rec. X, 583; XII, 877.

rational, Rec. VIII, 822; XI, 483.

suggestions, Rec. IX, 983.

food, analyses, Rec. XI, 279.

fruit for, Rec. VII, 708; VIII, 714.

grafting to prevent chlorosis, Rec. VI, 424.

Stock—Continued.

ligneous products as food for, Rec. V, 822.

melons—

analyses, Rec. IV, 175.

as a feeding stuff, Rec. III, 17; IX, 899.

culture experiments, Rec. VII, 121; X, 340.

food value, Rec. X, 984.

notes, Rec. III, 17; IX, 377.

varieties, Rec. XI, 1036.

plants—

injurious to, Rec. IV, 924; VII, 38.

poisonous to, Rec. I, 295; II, 395; IV, 924; VII, 38; VIII, 892; IX, 957; X, 54; XI, 113, 120, 220, 696, 909, 1057; XII, 218, 891.

(See also CATTLE POISONING.)

raising—

and dairying, manual, Rec. XI, 86.

heredity in, Rec. IX, 983.

scrub, raising, Rec. III, 404.

sheltered *v.* unsheltered, Rec. V, 71.

sugar beets for, Rec. II, 131, 505.

winter feeding, Rec. VII, 804.

Stockmen, books for, Rec. XI, 999.

Stocks—

for grafting grapes, Rec. X, 355.

Montana, notes, Rec. XI, 251.

the orange, selection, Rec. II, 749; XI, 1048.

hardiness in Iowa, Rec. XI, 252.

modification of scion, Rec. XI, 152.

Stomach—

hydrochloric acid in contents, Rec. VII, 557.

impaction, notes, Rec. VI, 245.

motility as affected by large quantities of fat, Rec. XII, 177.

worm—

in lambs, Rec. XII, 788.

sheep, Rec. IX, 994; XII, 688, 792, 997.

sheep of Cape Colony, Rec. V, 354.

notes, Rec. II, 79; IX, 693.

remedies, Rec. X, 595.

Stomaphis graffi, notes, Rec. XI, 657.

Stomata—

as affected by vapors, Rec. XI, 115.

on hickory caused by *Phylloxera*, Rec. IV, 83.
structure and function, Rec. VIII, 290; IX, 421, 725.

studies, Rec. X, 121; XI, 114.

wax stopped, Rec. XI, 116.

Stomoxys calcitrans, notes, Rec. VIII, 418; IX, 63; XII, 82.

Stone—

flies, collecting and rearing, Rec. XII, 870.

fruits—

brown rot. (See *MONILIA FRUCTIGENA*.)

Exoascæ of, Rec. VI, 436.

food value, Rec. XI, 599.

grown on their own roots, Rec. II, 218.

gum disease, Rec. VIII, 705; X, 355, 457.

rots, Rec. VI, 61.

Stooling of grains, Rec. X, 947; XII, 941.

Storage—

battery for electrical recording instruments, Rec. XI, 620.

cellars, construction, Rec. VIII, 1033.

of cereals, loss of weight in, Rec. VI, 419.

Storage—Continued.

reservoir sites and canals, Rec. VIII, 351.

reservoirs, Rec. VIII, 91; XI, 195.

reservoirs as affected by forests, Rec. XI, 1052.

Storehouse moths, Rec. IX, 853.

Storeroom beetle or bookworm, notes, Rec. XII, 468.

Storksbill, analyses, Rec. X, 876.

Storm—

and weather forecasts, commercial importance, Rec. XII, 1016.

at Springfield, Mo., Rec. XII, 521.

centers in the Pacific, Rec. XI, 222.

glass, chemical, Rec. VIII, 111.

in Yucatan, Rec. XII, 520.

of June 28, 1897, in France, Rec. XI, 31.

October, 1896, in Gulf of California, Rec. VIII, 110.

sleet and snow, memorable, Rec. XII, 1015.

signals on Great Lakes, Rec. XI, 127.

tracks, periodic and nonperiodic fluctuations, Rec. V, 1087.

warnings on Oregon coast, Rec. XII, 521.

wave at Sausalito, Rec. VIII, 111.

waves—

notes, Rec. XII, 520.

of South Carolina and Texas, Rec. XII, 831.

on the Great Lakes and the ocean, Rec. VII, 845.

Storms—

and wells, Rec. XII, 831.

benefits and injuries, Rec. XII, 119.

cyclonic, Rec. XI, 429.

distribution, Rec. VI, 702.

effect on song birds, Rec. X, 419.

fake, Rec. IX, 531.

forecasting, Rec. IX, 531.

in Bohemia, Rec. VII, 97.

France, July and August, 1897, Rec. IX, 427.

Steiermark, Kärnten, and Ober Krain, Rec. XII, 521.

the South Atlantic, Rec. V, 1087.

local, following river valleys, Rec. XI, 620.

mountain, Rec. IX, 424, 531; X, 124.

ocean, forecasting, Rec. V, 1087.

of March, 1888 and 1900, Rec. XII, 119.

September 8, 1894, in Kansas, Rec. VII, 845.

sleet, Rec. XII, 119, 122.

pamperos, Rec. XI, 429.

relation to phases of the moon, Rec. V, 819.

study by means of electradiophone, Rec. XII, 725.

Stove plants, Rec. VIII, 409.

Strabismus of domestic animals, Rec. V, 79.

Strangles—

notes, Rec. XII, 793.

of horses, studies, Rec. XII, 292.

Strathmore weed, notes, Rec. XII, 961.

Stratigraphy, Paleozoic, of Michigan, Rec. XII, 695.

Straw—

and forage, Rec. VII, 64.

hay, composition in wet and dry years, Rec. VII, 682.

sugar beets, ensiling, Rec. V, 293.

as a substitute for hay, Rec. V, 499.

composition, Rec. V, 141, 144, 145.

Straw—Continued.

- for litter, Rec. V, 655.
- gum in wheat and oat straw, Rec. V, 145.
- industry in Germany, Rec. X, 433.
- manure, analyses, Rec. XI, 626.
- mats in horticulture, substitute, Rec. V, 820.
- nitrogen content, Rec. X, 515.
- of cereals, carbohydrates, Rec. IX, 23.
- v. marsh hay* for steers, Rec. XI, 876.
- peat as litter, Rec. XI, 438.
- shavings as bedding, Rec. XI, 971.
- worm, notes, Rec. VI, 151.
- "Straw-like material," fuel value, Rec. XII, 1072.

Strawberries—

- adapted to Utah, Rec. V, 53.
- analyses, Bul. 2, II, 116; Rec. I, 317; II, 315, 582; IV, 59; X, 754; XI, 313, 1046; XII, 445, 906.
- anatomical differences, Rec. XI, 247.
- bisexuality, Rec. VIII, 471.
- botany, Rec. X, 640.
- breeding, Rec. XII, 246.
- breeding experiments, Rec. VIII, 310.
- chemistry, Rec. VIII, 408.
- crossing, Rec. II, 365; V, 874; VI, 988.
- crossing and plant selection, Rec. XII, 944.
- culture, Bul. 2, I, 67; Rec. I, 5; II, 235, 726; III, 607; IV, 917; V, 300, 395, 585; VI, 55, 221, 992; VII, 128, 687, 960; VIII, 785; IX, 52, 139, 449, 647, 948; X, 46, 49, 150, 152, 355, 439, 552, 1043; XII, 246, 450, 898, 1046.
- culture—
 - and use, Rec. XII, 854.
 - experiments, Rec. II, 288, 449, 717; VI, 637, 817, 901; VIII, 696; XI, 150; XII, 148.
 - in pots, Rec. XI, 1049.
- destruction by *Harpalus ruficornis*, Rec. IX, 575.
- effect of—
 - frost on different varieties, Rec. XI, 246, 819; XII, 854.
 - hydrocyanic-acid gas, Rec. XII, 775.
 - pollen on ripening season, Rec. X, 755.
 - removing runners, Rec. XI, 247.
- evolution, Rec. XI, 52.
- fertilizer—
 - experiments, Rec. V, 396; VI, 818; VII, 128, 307; VIII, 886; X, 434; XI, 543, 736, 1039; XII, 149, 246, 344, 645, 646.
 - formula, Rec. XI, 744; XII, 851.
- fertilizers for, Rec. X, 1044.
- forcing, Rec. VI, 221, 729; VII, 767; IX, 139, 246, 353.
- fruitfulness as affected by rainfall, Rec. III, 297, 306.
- Harpalus caliginosus* affecting, Rec. XII, 369, 469.
- hill *v. matted row* culture, Rec. X, 434; XI, 736; XII, 645.
- hybrid, culture experiments, Rec. X, 47.
- in August and September, Rec. VI, 300.
- insecticides and fungicides for, Rec. III, 23.
- insects affecting, Rec. II, 328; VIII, 786; IX, 648; X, 367, 552.
- irrigation, Rec. V, 691; VIII, 310, 313, 696; X, 355, 434; XI, 736, 1039; XII, 344.
- keeping qualities, Rec. VIII, 310.

Strawberries—Continued.

- maintaining productiveness, Rec. XI, 246.
- manual, Rec. XI, 352.
- morphology, Rec. XI, 544.
- mulching, Rec. V, 300, 584; IX, 949.
- mulching to retard fruiting, Rec. V, 584.
- nitrate of soda for, Rec. IV, 42.
- notes, Rec. II, 740; X, 547, 757; XI, 1047; XII, 151.
- pollination, Rec. IX, 139, 245.
- pollination experiments, Rec. XI, 1046.
- preservation by alcoholic vapor, Rec. IX, 560.
- preservatives for exhibition purposes, Rec. XI, 649.
- propagation, rapid, Rec. XI, 448.
- protection from soil injury, Rec. VI, 143.
- relation of frost to crop, Rec. XI, 819.
- renewal of beds, Rec. XI, 154.
- second crop, Rec. IX, 52.
- seedling, Rec. VII, 306.
- selection of varieties, Rec. II, 256.
- tests of new varieties, Rec. IX, 561.
- varieties, Bul. 2, I, 21, 26, 154, 190; Bul. 2, II, 88, 91, 117; Rec. I, 84, 188, 225, 229, 287, 317, 319; II, 5, 6, 22, 25, 50, 147, 198, 235, 255, 289, 295, 314, 317, 322, 327, 354, 365, 372, 392, 395, 406, 411, 449, 511, 556, 566, 586, 598, 641, 653, 659, 668, 726, 742; III, 78, 82, 85, 229, 282, 290, 313, 356, 360, 361, 370, 386, 401, 411, 412, 445, 470, 514, 532, 537, 588, 685, 689, 697, 700, 722, 781, 794, 876; IV, 43, 112, 145, 165, 166, 352, 412, 555, 650, 651, 652, 728, 917, 918; V, 53, 190, 300, 302, 395, 496, 584, 585, 593, 681, 786, 793, 870, 871, 873, 874, 877, 983, 984, 985, 1076; VI, 52, 53, 55, 56, 142, 221, 298, 300, 424, 636, 723, 727, 810, 818, 901, 902, 988; VII, 128, 130, 131, 159, 214, 217, 306, 395, 405, 502, 505, 767, 864, 866, 958, 960; VIII, 133, 134, 231, 310, 331, 407, 496, 600, 697, 786, 791, 889; IX, 50, 246, 353, 354, 356, 447, 451, 650, 755, 948, 1052, 1053, 1054; X, 46, 48, 49, 150, 152, 253, 255, 355, 434, 436, 552, 962, 1043; XI, 50, 150, 153, 251, 252, 253, 352, 452, 544, 547, 644, 650, 736, 844, 850, 851, 931, 1046; XII, 148, 151, 237, 246, 346, 450, 645, 747, 853, 854, 1046.
- varieties for Ohio, Rec. XII, 346.

Strawberry—

- anthracnose, notes, Rec. VI, 823.
- bacterial diseases, Rec. IX, 324; XII, 657.
- beetle, notes, Rec. II, 101.
- blight, notes, Rec. II, 246, 482.
- bush, notes, Rec. III, 521.
- crown borer, notes, Rec. II, 71, 328, 405; III, 313; VII, 42; X, 369, 866; XI, 170.
- crown moth, notes, Rec. X, 867; XII, 364.
- diseases, notes, Rec. V, 498; VI, 823; IX, 648.
- fla beetle, notes, Rec. II, 746; X, 369; XII, 364.
- fla, notes, Rec. V, 681.
- leaf beetle, remedies, Rec. VIII, 806.
- leaf blight—
 - notes, Rec. II, 405; III, 217, 313, 479, 847; V, 194, 498, 585, 681; VI, 53, 558, 560, 823, 910; VII, 691; X, 824; XI, 170, 261, 314.
 - (See also SPHERELLA FRAGARIE.)
- prevalence, Rec. III, 515.
- treatment, Rec. I, 281; II, 32, 405; III, 847; IV, 659; VII, 767; VIII, 175, 786.

Strawberry—Continued.

leaf curl, notes, Rec. VI, 910.

leaf roller—

in Kentucky, Rec. IV, 84.

notes, Rec. II, 405; V, 403; VII, 42; VIII, 69; IX, 664, 1065; X, 165, 369.

remedies, Rec. VI, 55; XI, 761.

leaf rust—

notes, Rec. X, 266.

treatment, Rec. IV, 55; IX, 449.

leaf spot, notes, Rec. VI, 823; XI, 759.

mildew, notes, Rec. VI, 823.

panama, notes, Rec. X, 368, 660.

plants—

distribution, Rec. V, 985.

natural and artificial fertilization, Bul. 2, II, 91.

setting, Rec. III, 246.

powdery mildew, Rec. V, 193.

raspberry, notes, Rec. IX, 50, 354; X, 757, 758; XI, 50, 150, 252, 544.

root borer, notes, Rec. III, 313.

root louse—

notes, Rec. I, 291; VI, 835; X, 457, 571; XI, 952; XII, 970.

remedies, Rec. V, 983; VIII, 807.

root worms, notes, Rec. II, 405.

roots, studies, Rec. X, 720.

rust—

fungicides for, Rec. III, 10.

notes, Rec. III, 10, 290; V, 498; VI, 53; VIII, 499.

scale insect, notes, Rec. VI, 235.

shrub, notes, Rec. IV, 655.

slug—

green, notes, Rec. IV, 415.

notes, Rec. II, 405; IV, 415; V, 593; VI, 316, 566; VII, 697; VIII, 505, 906; XII, 68.

snout beetle, notes, Rec. VIII, 418.

thrips, remedies, Rec. X, 867.

tree, distribution, Rec. III, 597.

tomato, notes, Rec. III, 617.

weevil—

notes, Rec. III, 359; IV, 415, 688, 839; V, 790, 983; VI, 562, 652, 835, 836; VII, 147; IX, 261, 662, 664, 670; X, 369, 457, 569.

remedies, Rec. III, 359; V, 791; VII, 767.

Strawboard waste, analyses, Rec. X, 275.

Strawsonite for potato rot, Rec. VII, 876.

Streams—

as affected by reforestation of mountains, Rec. IV, 872.

effect of plant covers on flow, Rec. XII, 1096.

measurement, Rec. XI, 195, 196; XII, 797, 1096.

of Nebraska, rates of discharge, Rec. XII, 197.

protection of banks, Rec. VII, 508, 775; VIII, 351.

self-purification, Rec. V, 435.

small, in landscape gardening, Rec. XI, 650.

Street—

and house sweepings as a fertilizer, Rec. IV, 222, 518; X, 832.

pavements, hygienic value, Rec. XII, 797.

planting and shade trees, Rec. II, 741; VII, 135; VIII, 890; IX, 951; X, 223; XII, 650.

sweepings, analyses, Rec. VIII, 877; X, 337, 832; XI, 625, 719; XII, 931.

trees, pruning, Rec. VII, 506.

Streets, effect of sprinkling on development of bacteria, Rec. XI, 287.

Streptocarpus, improvement, Rec. IX, 358.

Streptococci—

in animal diseases, Rec. V, 511.

comparative pathology, Rec. XII, 292.

milk, Rec. XII, 1080.

of "yellow galt," Rec. VI, 666.

Streptococcic inflammation of cows' udders and catarrh in man, Rec. VII, 712.

Streptococcus—

and antistreptococcic serum, Rec. VII, 280.

typhoid bacillus in man and animals,

Rec. IV, 694.

Streptococcus—

brevis, notes, Rec. V, 512.*equi*, inoculation experiments, Rec. X, 896.*longus*, notes, Rec. V, 512.*pastorianus*, notes, Rec. VIII, 909.*radiatus*, notes, Rec. XII, 986.*Streptothrix caprae*, n. sp., Rec. XI, 797.*Strictis compressa*, notes, Rec. III, 810.

Strigidae, feeding habits, Rec. XI, 425.

Strix aluco, notes, Rec. X, 521.

Strobilus in archegoniate plants, Rec. VI, 280.

Strongylus— (See also LUNG WORMS AND STOMACH WORMS.)

armatus, notes, Rec. IX, 1093.*capillaris*, lung disease of goats, Rec. XI, 191.*cervicornis*, notes, Rec. XII, 684.*commutatus*, notes, Rec. IX, 274.*contortus*. (See STOMACH WORM.)*filaria*, notes, Rec. II, 79; VII, 252; IX, 274; X, 594.*filicollis*, notes, Rec. II, 79.*micrurus*, notes, Rec. IX, 274.*nodularis*, notes, Rec. IX, 1092.*ostertagi* v. *S. convolutus*, notes, Rec. VI, 472.*ovis pulmonalis*, notes, Rec. II, 79; IX, 274.*paradoxus*—

in hogs, Rec. X, 95.

notes, Rec. IX, 274.

retortaeformis, notes, Rec. IX, 1092.*rufescens*, notes, Rec. IX, 274; X, 594.*strigosus* affecting rabbits, Rec. XI, 712.*ventricosus*, notes, Rec. II, 79.

Strongylus—

from the ox, undescribed, Rec. V, 439.

of the sheep's stomach, Rec. IX, 1093.

Strontium—

as a substitute for calcium in plants, Rec. XII, 219,

barium, and lime, quantitative separation, Rec. IV, 983.

replacing lime in—

animals, Rec. V, 822.

plants, Rec. V, 539, 698.

salts, effect on growth of wheat, Rec. XII, 911.

solution, fertilizing value, Rec. VIII, 767.

volumetric determination, Rec. V, 647.

Strophosomus—

coryli—

notes, Rec. VIII, 70.

on firs, Rec. VI, 151.

obesus, notes, Rec. VIII, 70.*Struthidea* spp., notes, Rec. XII, 424.

- Strychnin—
 effect on—
 plants, Rec. VI, 279.
 tetanus, Rec. XI, 192.
 for ground squirrels, Bul. 2, I, 30.
 wireworms, Rec. III, 448.
 toxicological experiments, Rec. XII, 392.
- Stubble—
 and roots of leguminous plants, analyses,
 Rec. III, 376.
 fields for pigs, Rec. X, 177, 397.
 of plants—
 analyses, Rec. II, 200.
 as fertilizers, Rec. II, 200, 397.
 plowing under for diseases of cereals, Rec.
 XI, 175.
 turning under, Rec. X, 623.
Sturmia inquinata, notes, Rec. VIII, 998.
- Sturtevant, E. L., biographical sketch, Rec. X,
 301.
- Sturtevant Prelinnean Library of the Missouri
 Botanical Garden, catalogue, Rec. VII, 926.
- Subearth ducts, construction, Rec. XI, 490.
- Subirrigation—
 by tile drains, Rec. VI, 848.
 effect on lettuce diseases, Rec. XI, 261, 552.
 for carnations, Rec. IX, 1053; XII, 1046.
 chrysanthemums, Rec. IX, 951.
 foliage beds, Rec. IX, 561.
 lettuce, Rec. V, 680; VIII, 48; IX, 840.
 radishes, Rec. V, 680; X, 249; XI, 929.
 tomatoes, Rec. V, 680; IX, 446.
 in greenhouses, Rec. IV, 413; V, 680; VI, 170,
 267, 290; VII, 504, 686; VIII, 47; IX, 557,
 1050, 1053; X, 264, 397, 854; XI, 50.
 notes, Rec. VI, 346.
 of grapes by brush ditches, Rec. XI, 452.
 out of doors, Rec. VIII, 349.
 systems, tests, Rec. XII, 1095.
 v. surface irrigation, Rec. V, 690.
- Submersion—
 effect on roots, Rec. VI, 279.
 for phylloxera, Rec. VI, 440.
- Subsistence stores for U. S. Army, Rec. X, 181.
- Subsoil—
 effect on root tubercles, Rec. VII, 188.
 experiments, Rec. V, 443.
 plowing, Rec. IX, 234.
 plowing—
 for conservation of soil moisture, Rec.
 VII, 847.
 notes, Rec. VII, 290, 753.
 plows, French, Rec. XI, 526.
- Subsoilers, draft, Rec. XI, 96.
- Subsoiling—
 effect on soil moisture, Rec. VII, 190; IX, 534.
 experiments, Rec. II, 598; VI, 985; IX, 233;
 XII, 628.
 for cereals and root crops, Rec. XI, 1026.
 corn, Rec. II, 551; III, 322; IV, 808; VI,
 526; X, 139, 146, 428.
 cotton, Rec. XI, 139.
 light, sandy soil, Rec. XI, 244.
 sugar beets, Rec. X, 40, 143; XII, 628.
- Subsoils—
 analyses, Bul. 2, I, 22; Rec. III, 315; IV, 244.
 number of particles per gram, Rec. IV, 20.
- Subsurface packing—
 corn, Rec. X, 429.
 effect on soil moisture, Rec. XII, 628.
- Subterranean organs of Compositæ, Rec. XI, 121.
- Succinic acid—
 determination, Rec. V, 252.
 determination in wines, Rec. VIII, 562.
 use in alkalimetry, Rec. XII, 308.
- Succotash, canned, analyses, Rec. V, 220.
- Suck fly—
 notes, Rec. X, 1068; XI, 471.
 remedies, Rec. X, 1068.
- Sucrene Dairy Feed, analyses, Rec. XII, 281, 282.
- Sucrene oil meal, analyses, Rec. XI, 279.
- Sucrose—
 and raffinose, inversion, Rec. VII, 365.
 as affected by—
 acetic and hydrochloric acids, Rec. VI,
 868.
 acid phosphate, Rec. VII, 718.
 lime, Rec. VII, 718.
 sulphurous acid, Rec. VII, 718.
 superphosphate, Rec. VII, 718.
 citric acid from, Rec. VII, 362.
 determination, Rec. XI, 311.
 determination in—
 molasses and masse cuites, Rec. VII, 741.
 wine, Rec. IX, 225.
 fermentation, Rec. VII, 659.
 inversion by—
 bacteria, Rec. VII, 365.
 different acids, Rec. XI, 20.
 oxidation during formation of citric acid,
 Rec. VII, 557.
 presence in grapes, Rec. XII, 716.
 rotation as affected by temperature, Rec. XI,
 311.
 with dextrose and levulose, determination,
 Rec. IV, 388.
- Suction and pressure apparatus, continuous, Rec.
 IV, 782.
- Suet, detection of vegetable oils, Rec. X, 118.
- Sugar— (See also BEET, CANE, and MAPLE.)
 action on ammoniacal silver nitrate, Rec. VII,
 920.
 adulteration, Rec. III, 814.
 analyses, Rec. IV, 559; VI, 274; XI, 883; XII,
 79, 823.
 analysis—
 Clerget method, modification, Rec. X, 117.
 gravimeter for, Rec. VI, 273.
 international commission for uniform
 methods, Rec. X, 413.
 methods, Rec. II, 608; III, 632; IV, 118;
 V, 510; VI, 183, 775; VII, 267; XII, 516.
 official methods, Rec. VI, 190.
 report, Rec. III, 632.
 and acid—
 content of musts, Rec. VI, 375.
 in California fruits, Rec. IV, 920.
 and glycogen of lymph, Rec. VII, 185.
 saccharine substances, examination, Rec.
 V, 261.
 starch in coarse fodders, methods of anal-
 ysis, Bul. 2, II, 15.
 as a feeding stuff, Rec. X, 281; XII, 177, 677.
 a nutrient, Rec. XI, 184.

Sugar—Continued.

as a source of muscular energy, Rec. X, 663.
 food, Rec. XI, 278, 481, 777, 1075; XII, 780.
 ash analysis, Rec. VII, 257.

Chemists—

International Congress, Rec. III, 932.
 of Austria-Hungary, convention, Rec. VI, 111.

compounds, Rec. VII, 365, 834.

consumption—

in England, Rec. XII, 1076.
 the United States, increase of, Rec. XI, 535.

crop—

and weather, Rec. X, 419.
 of the world, Rec. V, 798.

crystallizable, in raw sugars, Rec. VII, 72, 91.

crystallized, Karcz method, Rec. VII, 91.

crude, storage, Rec. IV, 989.

decomposition, Rec. IX, 25.

detection—

by means of α -naphthol, Rec. IV, 221.
 in urine, Rec. III, 924.

determination, Rec. V, 475; VI, 691; VII, 72, 184, 272, 365, 558, 738; VIII, 285, 286; IX, 25, 225, 420, 723; X, 117; XI, 306, 419; XII, 107.

determination—

by electrical methods, Rec. X, 117.
 Fehling's method, Rec. IV, 516.
 Ost's copper solution, Rec. IV, 612.
 in bananas as affected by ferments, Rec. V, 127, 223.

beets, Rec. IV, 692; VII, 557.

chocolate, Rec. VIII, 376; IX, 25.

coarse fodder, Bul. 2, II, 65.

corn, Rec. II, 589.

cornstalks, Rec. VI, 984; VIII, 623; XI, 112.

cranberries, Rec. XII, 753.

foods, Rec. II, 589.

fruit juices, sirups, etc., Rec. VII, 556.

malt, Rec. VIII, 460.

mash, Rec. V, 477.

meat and urine, Rec. X, 608.

milk, Rec. IV, 987; V, 260; VII, 829; VIII, 200; IX, 225, 419, 521; XII, 908, 1005.

minute quantities, Rec. III, 925.

molasses feeding stuffs, Rec. VIII, 378; XI, 311; XII, 21.

new wine, Rec. IV, 984.

potatoes and grain, Rec. V, 476.

silage, cooked and uncooked, Rec. II, 374.

sorghum, Rec. VI, 984.

sugar beets, Rec. V, 487.

tomatoes, Rec. IV, 802.

urine, Rec. III, 924; IV, 221, 313; X, 608.

with phenylhydrazin, Rec. V, 251.

diffusion process, Bul. 2, I, 72.

distribution in pears, Rec. XII, 558.

effect on—

bacterial liquefaction of gelatin, Rec. IX, 1030.

muscle exhaustion, Rec. XI, 67, 1075.

muscular work, Rec. VII, 701; IX, 175; XI, 184.

Sugar—Continued.

effect on—continued.

nitrogen assimilation of legumes, Rec. XI, 516.

plant growth, Rec. XI, 516; XII, 615.

extraction, new process, Rec. XII, 195.

factory refuse—

fertilizing value, Rec. V, 651.

phosphoric acid in, Rec. VII, 293.

feed, analyses, Rec. III, 13.

food value, Rec. XI, 576.

for animals, Rec. VII, 425, 708; VIII, 323.

cattle, Rec. IX, 874.

cows, effect on fat, Rec. III, 579, 744.

fattening pigs, Rec. XII, 583.

forage and green manuring, Rec. VII, 207, 581.

reduction of ferric alum, Rec. IX, 620.

formation—

during digestion of yeast, Rec. VII, 557.

from protein, Rec. XI, 1076.

in barley and malt, Rec. IX, 329; X, 223, 417.

beets, Rec. VIII, 204, 470; XI, 321.

study, Rec. VI, 869.

from apple pectin, Rec. V, 648.

by-products of sugar manufacture, Rec. VI, 280.

egg albumen, Rec. XI, 23.

galactose, Rec. VII, 365.

indican, Rec. VI, 615.

pear pectin, Rec. IV, 612.

sorghum, extraction, Rec. II, 747.

sugar beets, extraction, Rec. II, 100.

grain insects in, Rec. V, 901.

group, new synthesis in, Rec. IX, 219.

Hawaiian, importation, Rec. IX, 898.

house—

losses, Rec. VII, 558.

products, moisture in, Rec. VII, 558.

humic acid from, calorimetric tests, Rec. III, 655.

humins from, Rec. IX, 418.

in *Agave americana*, Rec. VII, 271.

animal nutrition, Rec. VI, 931.

army rations, Rec. X, 884.

coffee, Rec. VII, 616.

different parts of sugar beets, Rec. III, 446.

green stalks of corn, Rec. X, 116.

milk, formation as affected by pilocarpin and phloridzin, Rec. IV, 781.

milk of different breeds, Rec. V, 945.

mushrooms, Rec. IV, 614.

nutrition of man and animals, Rec. XI, 79, 1075.

orange peel, Rec. X, 219.

plants as affected by light, Rec. X, 1013.

ripe bananas as affected by a ferment, Rec. V, 127, 223.

tobacco, Rec. VIII, 122.

Washingtonia filamentosa, Rec. VII, 749.

increase of consumption in the United States, Rec. XI, 535.

industry—

and its requirements, Rec. XI, 296.

in Denmark, Rec. VII, 257.

Louisiana, Rec. IX, 196.

Porto Rico, Rec. XII, 399.

the United States, Rec. II, 46, 97.

Sugar—Continued.

- insects in, Rec. V, 901.
- inversion, Rec. X, 313, 918.
- inversion by—
 - salts, Rec. VII, 833; VIII, 286; IX, 1023.
 - sulphurous acid, Rec. IX, 25.
- invert—
 - determination, Rec. XI, 213.
 - determination in molasses from beets and sugar cane, Rec. X, 96.
 - determination of moisture, Rec. X, 117.
 - effect of lime and alkalis, Rec. IV, 988; V, 251.
 - Fehling-Soxhlet method, Rec. III, 924; VII, 365.
 - removal of lead from, Rec. VII, 365.
- inverted, absorption by roots, Rec. IX, 724.
- juice, glucose in, Rec. VI, 273.
- juices, mechanical losses in cooking, Rec. V, 735.
- land, preparation and culture, Rec. VIII, 976.
- making—
 - alcohol method, Rec. IV, 81.
 - barium chlorid in, Rec. VII, 529.
 - electric oven, Rec. V, 651.
 - experiments, Bul. 2, I, 72; Rec. I, 235, 236.
 - from maple sap. (*See* MAPLE SUGAR.)
 - sorghum. (*See* SORGHUM.)
 - sugar cane. (*See* SUGAR CANE.)
 - in Antigua, Rec. VII, 72.
 - on a small scale, Rec. II, 568.
 - prevention of foaming, Rec. VI, 344.
 - selection of cane for, Rec. II, 568.
 - sulphuric-acid content, Rec. VI, 344.
- manufacture—
 - bacterial studies, Rec. VIII, 530; XII, 722.
 - in Formosa, Rec. IX, 644.
 - osmosis in, Rec. IV, 984.
 - use of wool fat, Rec. VII, 163.
- manufacturing, bacteria in products, Rec. VII, 71.
- maple— (*See also* MAPLE SUGAR.)
 - analyses, Rec. IV, 475; V, 312; VI, 942; IX, 808; XII, 78.
 - and sirup, notes, Rec. VII, 134, 162.
 - sirup, production, Rec. IV, 195; VII, 257, 993.
 - as affected by forest tent caterpillar, Rec. XI, 269; XII, 69, 166.
 - bounty, Rec. III, 101.
 - flavor of, Rec. V, 937.
 - making, Rec. III, 246; XI, 318.
 - making, effect of altitude, Rec. IV, 495.
 - modern process, quality of, Rec. V, 937.
 - notes, Rec. III, 246, 521; IV, 654; V, 884; VII, 134.
 - production in Vermont, Rec. IV, 195.
 - testing, Rec. III, 246.
- meal—
 - Buffalo kiln-dried, analyses, Rec. IV, 935.
 - for cows, Rec. V, 73.
- melons, analyses, Rec. VIII, 597.
- nutritive value, Rec. V, 1032; XI, 79.
- palm, Rec. VI, 344.
- phenylhydrazin test for, Rec. XI, 705.

Sugar—Continued.

- producing plants—
 - analyses, Bul. 2, I, 90; V, 190; XII, 518, 641, 1014.
 - compilation of analyses, Rec. II, 582; III, 162.
 - production—
 - in Argentina, Rec. IX, 446.
 - British Guiana, Rec. VI, 251; X, 98.
 - Egypt, Rec. VI, 485.
 - Europe, Rec. IX, 898.
 - Hawaii, Rec. IX, 898.
 - Russia, Rec. IX, 398.
 - Sweden, Rec. IV, 695.
 - the world, Rec. IX, 898:
 - products—
 - copper in, Rec. V, 190.
 - estimation of dry matter, Rec. VII, 744.
 - raw—
 - determination of water, Rec. VI, 868.
 - for cows, Rec. XI, 885.
 - water content, Rec. VII, 273.
 - reboiling low grade, Rec. VII, 719.
 - reducing and invertible, in cornstalks, Rec. XI, 904.
 - refining, Rec. V, 261, 349.
 - refuse, glucose content, Rec. VII, 530.
 - rotary power, Rec. XI, 112, 311.
 - school at Louisiana Station, Rec. III, 861.
 - solubility in mixtures of alcohol and water, Rec. VI, 966.
 - solution, alkaline, effect of heating, Rec. V, 344.
 - solutions—
 - as affected by lead acetate, Rec. VII, 920.
 - clarification, Rec. VII, 364.
 - effect of subcutaneous injections, Rec. XI, 483.
 - prepared from wood, incomplete fermentation, Rec. X, 123.
 - purification, Rec. X, 716.
 - stations in Java, Rec. III, 278.
 - statistics, Rec. VI, 411; VIII, 1034; XII, 1098.
 - transformation of starch into, Rec. VI, 775.
 - v. fat, food value, Rec. X, 70.
 - wood—
 - digestibility of, Rec. II, 685.
 - preparation and properties of, Rec. II, 685.
 - (*See also* SUGARS.)
- Sugar beet—
- bacterial disease, Rec. III, 853; IV, 824; IX, 61; X, 264; XI, 756, 859; XII, 462.
 - beetles, remedies, Rec. VIII, 321; IX, 256.
 - blister beetle on, Rec. VI, 38.
 - crop, effect of weather, Rec. IV, 985.
 - diffusion residue. (*See* BEET CHIPS.)
 - diseases, Rec. III, 783, 853; V, 348; VI, 560; XI, 163, 468, 756, 859, 861, 1057, 1058, 1061; XII, 462.
 - diseases—
 - as affected by fertilization, Rec. XII, 572.
 - in Saxony, Rec. X, 266.
 - seed treatment, Rec. XII, 657.
 - dry rot, Rec. VIII, 141, 801; IX, 362; X, 156.
 - fungus diseases, Rec. VI, 646; VII, 591; IX, 760; XI, 162.

Sugar beet—Continued.

- gummosis, Rec. V, 731; VIII, 800; IX, 61, 361, 362, 763.
- heart rot, Rec. VIII, 141, 801.
- juice—
 - abnormally high polarization, Rec. XI, 905.
 - amins in, Rec. VIII, 286.
 - amount of, Rec. X, 43.
 - analyses, Rec. III, 390; VII, 677; IX, 242; XI, 314.
 - as affected by soil salts, Rec. XI, 146.
 - affected by electrical currents, Rec. V, 265.
 - ash content, Rec. VI, 274.
 - clarification, Rec. III, 389; VII, 529; IX, 196.
 - guanin in, Rec. XI, 310.
 - nitrogenous constituents, Rec. VII, 645; VIII, 976.
 - nonnitrogenous substances in, Rec. VII, 646.
 - nonsugars in, Rec. VII, 647.
 - purification, Rec. IV, 988; V, 261, 349.
- leaf, composition at different stages, Rec. XII, 313.
- leaf scorch, Rec. XI, 1058.
- leaf spot—
 - and seed disease, Rec. XI, 468.
 - notes, Rec. IV, 822; IX, 362; XII, 657.
 - treatment, Rec. XI, 163.
- leaves—
 - analyses, Rec. IV, 175; XI, 75, 733.
 - as a feeding stuff, Rec. VI, 331.
 - nitrogen content as affected by fertilizers, Rec. VII, 955.
 - preservation for fodder, Rec. XI, 733; XII, 641.
 - removal of, Rec. IV, 967.
 - transformations, Rec. VIII, 28.
- molasses—
 - for domestic animals, Rec. VII, 63.
 - utilization, Rec. VII, 155.
- nematode diseases, Rec. III, 820.
- nematodes, Rec. V, 912; VII, 39, 876; IX, 660; XI, 1057.
- parasites, Rec. VII, 310; VIII, 69, 706; IX, 363.
- parasitic disease, Rec. IV, 872; X, 764.
- pulp. (See BEET PULP.)
- ring scab, notes, Rec. XI, 1061.
- root blight, treatment, Rec. IV, 518.
- root rot—
 - notes Rec. X, 865; XI, 163; XII, 657.
 - treatment, Rec. XI, 163.
 - undetermined species, Rec. V, 60.
- root, temperature of interior, Rec. V, 265.
- roots and crowns, analyses, Rec. XII, 943.
- scab. (See BEET SCAB AND POTATO SCAB.)
- seed— (See also BEET SEED.)
 - American-grown, Rec. II, 424.
 - analyses, Rec. XI, 1056.
 - anatomy and physiology, Rec. IX, 526; XI, 321.
 - development, Rec. IX, 345.
 - distribution, Rec. IV, 81, 671; V, 1004; XI, 536.
 - domestic *v.* imported, Rec. V, 1004.

Sugar beet—Continued.

- seed—continued.
 - effect of soaking, Rec. V, 46.
 - from different-sized balls, Rec. V, 653; VII, 397; VIII, 975.
 - germination as affected by character of seed bed, Rec. IV, 590.
 - germination by intermittent temperature, Rec. IV, 590.
 - germination experiments, Rec. V, 494, 628, 910.
 - influence on beets produced, Rec. V, 335.
 - method of growing, Rec. V, 731.
 - production, Rec. II, 181; V, 45, 1004; VII, 300; X, 847; XI, 535.
 - production as influenced by soils, Rec. VII, 300.
 - production in Germany, Rec. X, 847; XII, 144.
 - selection, Rec. V, 46, 184, 1030; VII, 122.
 - testing, Rec. XI, 839, 1056.
 - treatment, Rec. VII, 872.
 - treatment for scab, Rec. V, 1031.
 - Utah *v.* foreign, Rec. XI, 338.
 - soils, analyses, Rec. XI, 538.
 - tops. (See SUGAR BEET LEAVES.)
 - webworm—
 - kerosene emulsion for, Rec. V, 62.
 - notes, Rec. IV, 674, 839; V, 62, 327; VI, 441, VIII, 611; XII, 575.
 - wet rot, Rec. IX, 362; X, 156.
- Sugar beets—
- accumulation of sugar, Rec. VII, 749.
 - adaptation to different parts of the United States, Rec. II, 181, 182.
 - after alfalfa, Rec. X, 538.
 - alcohol production from, Rec. XI, 535.
 - ammonia and nitric nitrogen in, Rec. VII, 862.
 - analyses, Bul. 2, I, 33; Bul. 2, II, 39, 78, 94; Rec. II, 5, 54, 100, 111, 357, 375, 424, 495, 498, 505, 580, 630, 635, 671, 718, 722, 732, 748; III, 82, 127, 133, 159, 281, 357, 413, 445, 516, 591, 624, 662, 782, 794, 800, 804, 806, 809, 858, 859, 877, 890; IV, 64, 79, 144, 175, 177, 242, 437, 648, 671, 672, 722, 723, 822, 824; V, 43, 44, 46, 89, 217, 293, 335, 392, 477, 979, 1004, 1027; VI, 38, 411, 569, 808, 842, 1008; VII, 296, 336, 576, 891; VIII, 377, 561, 623; IX, 45, 831, 919, 1024; X, 143, 144, 145, 146, 246, 276, 346, 543, 544, 742, 746, 838, 840; XI, 142, 143, 213, 236, 237, 238, 239, 241, 313, 314, 337, 339, 340, 441, 536, 832, 927, 1035; XII, 44, 70, 144, 334, 338, 438, 541, 542, 547, 637, 743, 942, 981.
 - analysis—
 - by digestion in water, Rec. X, 1005.
 - methods of, Rec. II, 100; IV, 388; V, 437, 538; VII, 835.
 - animal enemies, Rec. XI, 428, 712.
 - as a preventive of hog cholera, Rec. IX, 193.
 - as affected by—
 - alkali, Rec. X, 743.
 - beet-seed parasites, Rec. XI, 948.
 - climate, Rec. II, 112; IX, 121.
 - drought, Rec. V, 621.
 - drying, Rec. IV, 81; X, 241, 746.
 - freezing, Rec. X, 241.
 - furnace slag, Rec. XI, 540.

Sugar beets—Continued.

as affected by—continued.

light, Rec. XI, 443.

meteorological conditions, Rec. IX, 242.

nematodes, Rec. VII, 876.

phosphoric fertilizers, Rec. XI, 540.

sulphuric acid, Rec. XII, 45.

weather, Rec. IV, 985; VIII, 868, 870.

ash constituents, Rec. III, 373; VII, 765.

breeding and selection, Rec. II, 93, 181; III, 662; VII, 350.

Cladochytrium pulposum on, Rec. VIII, 706.

climatology, Rec. V, 1004; IX, 121.

cooperative experiments, Rec. II, 95, 655; V, 359, 979; VIII, 307, 976; IX, 240, 833, 944; X, 39, 40, 240, 241, 246, 346, 544, 841; XI, 142, 143, 236, 237, 238, 239, 241, 339, 340, 441; XII, 144, 235, 334, 335, 438, 541, 636.

corn, and mangels, relative yield and cost of production, Rec. XII, 632.

cost of growing, Rec. II, 114; IV, 673; IX, 131, 1046; X, 39, 145; XI, 143, 237, 340.

cultivation—

frequency, Rec. X, 144.

implements for, Rec. II, 181.

culture, Rec. II, 99, 114, 131, 181, 424, 498, 608, 635, 655, 671, 719, 731, 734, 748; III, 788; VII, 122, 765, 862; VIII, 124, 596, 975; IX, 45, 134, 242, 344, 349, 552, 644, 1045, 1048; XII, 334, 849, 1008.

culture—

adaptability of Nevada soils to, Rec. V, 286.

effect on grain crops, Rec. XII, 943.

experiments, Bul. 2, I, 2, 83, 89; Rec. II, 111, 130, 375, 580, 718, 721, 731, 748; III, 360, 445, 516, 599; V, 374; VI, 295; VIII, 223, 308, 689; X, 43, 433; XI, 237, 238, 241, 443, 643, 832, 833, 839; XII, 44, 134, 229, 335, 430, 540, 541, 542, 846, 898.

for stock, Rec. V, 128.

implements, Rec. III, 800.

in Arizona, Rec. XI, 236.

Arkansas, Rec. VII, 121.

Belgium, Rec. X, 43.

California, Rec. V, 582; VI, 216; X, 245.

Canada, Rec. III, 357; VIII, 976.

Chile, Rec. XI, 538.

Colorado, Rec. IV, 346, 647; V, 871; VI, 296; VIII, 975; X, 246; XI, 337.

Egypt, Rec. XII, 46.

England, Rec. VI, 46.

Europe and the United States, Rec. VI, 543; IX, 898.

Germany, Rec. V, 134; IX, 196.

Hungary, Rec. IX, 242.

Idaho, Rec. X, 630.

Illinois, Rec. X, 143.

Indiana, Rec. III, 852; IV, 822; VI, 38; VII, 117; X, 143, 275; XI, 236.

Iowa, Rec. III, 782; IV, 144, 725; V, 43, 979; VI, 985; X, 241.

Ireland, Rec. VI, 46.

Italy, Rec. X, 842.

Kansas, Rec. III, 858; IV, 722; VI, 38.

Maryland, Rec. III, 516; XI, 441.

Massachusetts, Rec. III, 159; IV, 661.

Sugar beets—Continued.

culture—continued.

in Michigan, Rec. III, 794; X, 246; XI, 842.

Minnesota, Rec. IV, 144, 723; VI, 722.

Missouri, Rec. III, 877.

Montana, Rec. XI, 537.

Nebraska, Rec. III, 800; V, 44; VI, 209; VIII, 220; IX, 748.

Nevada, Rec. III, 802; V, 293; VI, 411; IX, 349; X, 631.

New Jersey, Rec. V, 392; VI, 808.

New Mexico, Rec. X, 246.

New York, Rec. X, 143, 145; XII, 641.

North Carolina, Rec. X, 636.

North Dakota, Rec. III, 804.

Norway, Rec. VIII, 975; IX, 45, 242; X, 43.

Ohio, Rec. III, 886.

Oklahoma, Rec. X, 340.

Oregon, Rec. III, 806; IV, 723; VIII, 975; XI, 1034.

Rhode Island, Rec. IV, 251.

Scotland, Rec. VI, 46; VIII, 975.

South Dakota, Rec. III, 889; VI, 543; VII, 32; X, 145; XI, 44.

Sweden, Rec. V, 261.

United Kingdom, Rec. X, 433.

United States, Rec. II, 748; III, 365; IV, 78, 671; V, 929; VI, 140, 543; VIII, 688; X, 397; XI, 535; XII, 742.

Utah, Rec. VI, 532; X, 146.

Washington, Rec. III, 807.

Wisconsin, Rec. II, 671; III, 808; IV, 145; V, 494; VII, 581; X, 39; XII, 46.

Wyoming, Rec. III, 413; IV, 648; VI, 38; X, 346.

introduction into Gothland, Rec. IV, 693.

legislation relating to, Rec. II, 115.

on alkali soils, Rec. VIII, 683; IX, 1048; X, 743; XI, 296; XII, 538.

heavy soils, Rec. VIII, 688.

Jack-pine plains, Rec. II, 357.

marsh soils, Rec. VII, 955; XI, 144.

poor v. rich soils, Rec. II, 100.

progress in, Rec. IX, 196.

report on, Rec. II, 181.

cutworms on, Rec. IV, 203.

development, Rec. XI, 643.

diastase, formation of, Rec. IX, 526.

diastatic ferment in, Rec. VII, 365.

digestibility, Rec. IV, 570.

effect of size on sugar content and purity, Rec. X, 144.

electro-culture, Rec. V, 265.

Enchytrædia parasitic on, Rec. IX, 61.

ensiling, Rec. III, 132; V, 293.

Entyloma lephroideum on, Rec. VI, 147.

feeding value, Rec. X, 246; XI, 80.

fermented liquors from, Rec. V, 928.

fertilizer—

experiments, Rec. I, 80; III, 281, 800; IV, 223; V, 45, 47, 233; VI, 216; VII, 122, 209, 579; VIII, 209, 684; IX, 129, 240, 241; X, 34, 40, 143, 534, 631, 750, 839, 841, 1037; XI, 138, 144, 237, 238, 240, 337, 540, 643, 734, 839, 842, 843; XII, 47, 335, 437, 533, 540, 623, 843, 846, 1039.

requirements, Rec. VII, 862; VIII, 122.

Sugar beets—Continued.

fertilizers—

for, Rec. II, 608; VII, 121.

phosphatic, for, Rec. III, 750; V, 378; VI, 518; XI, 39.

fertilizing materials absorbed by, Rec. III, 926.

fish guano as a fertilizer, Rec. X, 954.

flower of, Rec. V, 650.

food value, Rec. X, 698.

for cows, Rec. II, 364; IV, 181; VII, 976; VIII, 528; X, 587; XII, 678.

milk production, Rec. II, 247.

pigs, Rec. IV, 441; XII, 876.

sheep, Rec. VI, 156; VII, 706; VIII, 816; XI, 181; XII, 1074.

steers, Rec. III, 162.

stock, Rec. II, 131, 505.

function of furfuroids, Rec. XI, 321.

grafting, Rec. XI, 334.

green manuring for, Rec. VII, 498.

growth and nutrition, laws of, Rec. V, 749.

growth as affected by—

incandescent gaslight, Rec. XII, 48.

season, Rec. XII, 619.

seed parasite, Rec. XII, 359.

growth—

conditions favorable to, Rec. II, 112, 113, 181, 424, 608, 655, 671, 732; III, 413.

second year's, Rec. IV, 209.

harvesting, Rec. II, 181, 424.

harvesting—

at different dates, Rec. IV, 80; X, 745.

by machinery, Rec. V, 820; VI, 346; VII, 531, 631; VIII, 688.

injury by gophers, Rec. V, 293.

insects affecting, Rec. II, 733; III, 53, 783; IV, 203, 674; V, 62, 654, 732; IX, 257, 760; XI, 564, 1057; XII, 868.

irrigation, Rec. III, 445; IV, 647; V, 293; X, 545; XII, 334, 541, 1038.

lime for, Rec. XI, 143.

liquid manure for, Rec. III, 926.

management, Rec. XI, 535, 843.

manuring, Rec. II, 114, 181, 424, 608.

manuring—

nitrogenous, Rec. V, 377, 853; XII, 849.

underground, Rec. VII, 397.

meteorological conditions favoring, Rec. V, 1004.

monograph, Rec. XI, 842.

nitrate of soda—

for, Rec. IV, 872, 985; V, 1016; VII, 765.

v. fish guano for, Rec. X, 954.

nitrate of potash for, Rec. VIII, 777.

sulphate of ammonia for, Rec. VIII, 685.

notes, Rec. II, 534; X, 315; XI, 1047.

Phoma betæ on, Rec. IV, 615, 872; V, 438; XI, 166.

phosphoric acid—

as a fertilizer for, Rec. III, 750; V, 378.

in, Rec. IX, 29.

planting, Rec. II, 424.

planting at different—

dates, Rec. III, 800; IV, 80; X, 544; XI, 1035.

depths for, Rec. IV, 144; X, 238; XI, 631.

Sugar beets—Continued.

planting at different—continued.

distances, Rec. V, 46, 623; VII, 206; IX, 644; X, 143, 544, 847, 1036; XI, 44.

rates, Rec. V, 47.

planting small beets for seed, Rec. XII, 1038.

plowing, fall and spring, Rec. V, 46.

potash for, Rec. V, 378; VI, 292; VII, 862.

preparation of soil, Rec. X, 147.

propagation—

from buds, Rec. V, 47.

without seed, Rec. IV, 985.

purchase by sugar content, Rec. XI, 843.

quality of—

Colorado-grown, Rec. II, 630.

Iowa-grown, Rec. II, 718.

Kansas-grown, Rec. II, 722.

Maryland-grown, Rec. III, 517.

Massachusetts-grown, Rec. III, 159.

Nebraska-grown, Rec. II, 718, 722.

South Dakota-grown, Rec. II, 262, 424.

Wisconsin-grown, Rec. II, 671.

Rhizoctonia violaceæ on, Rec. XI, 163, 1057.

rich in sugar, composition, Rec. X, 1036.

root—

swellings, Rec. X, 1057.

system, Rec. XI, 215; XII, 517.

rotation, Rec. V, 45.

sampling, Rec. II, 94; V, 293; X, 246; XI, 311.

sand cultures, Rec. V, 763.

statistics, Rec. V, 1004; XII, 1039.

storing, Rec. II, 181, 424; IV, 672; V, 44, 128, 1004; VII, 300, 681; XI, 638.

subsoiling, Rec. X, 40, 143; XII, 628.

sugar content, Rec. II, 52, 100, 111, 718, 732; III, 446; VI, 808, 984; VII, 498, 681, 955; VIII, 596, 688; IX, 1046; X, 40, 143, 246.

sugar content—

as affected by distance of planting, Rec. IX, 644.

affected by phosphatic manures, Rec. IV, 518.

affected by size of seed, Rec. X, 144.

related to composition of seed balls, Rec. VII, 218.

related to size, Rec. XII, 541.

at different stages, Rec. V, 46.

conditions affecting, Rec. II, 722.

sugar—

formation of, Rec. VIII, 470; XI, 321.

in different parts, Rec. III, 446.

manufacture from, Rec. II, 498.

sulphate of potash for, Rec. V, 1016.

temperature of interior, Rec. V, 265.

topping, Rec. V, 45.

transplanting, Rec. V, 45; XI, 1035.

varieties, Bul. 2, I, 33; Rec. I, 14, 22, 36, 87; II, 4, 6, 7, 52, 54, 69, 95, 111, 181, 375, 425, 498, 580, 733, 748; III, 82, 85, 281, 356, 445, 516, 743, 782, 800, 804, 808, 858, 877, 886; IV, 39, 80, 144, 436, 723, 766, 824; V, 46, 293, 494, 623, 870, 1074; VI, 293, 416, 417, 418; VII, 120, 203, 209, 498, 579, 762; VIII, 220, 889, 973, 975; IX, 244, 828, 829, 830, 832, 833; X, 40, 146, 238, 241, 246, 537, 631, 743, 836, 846, 1034, 1037; XI, 143, 238, 337, 442, 631, 839, 842, 1035, 1036; XII, 44, 135, 229, 335, 437, 541, 846.

varieties, origin, Rec. V, 437.

Sugar beets—Continued.

- v. diffusion residue for milk production, Rec. X, 587.
- v. grain for—
 - sheep, Rec. VIII, 816.
 - steers, Rec. VIII, 815.
- v. mangel-wurzels for—
 - cows, Rec. IV, 440; XI, 688; XII, 389.
 - stock feeding, Rec. III, 887.
- v. potatoes for butter production, Rec. V, 974.
- silage for lambs, Rec. III, 872.
- water-core spots, Rec. III, 855.
- woody, Rec. XII, 135.
- yellowing, Rec. VIII, 239, 706.
- yield, Rec. II, 114, 131, 505; VI, 217.
- yield—
 - and food value per acre, Rec. IV, 568.
 - as affected by light, Rec. XI, 443.
 - affected by size of seed boll, Rec. VIII, 975.
 - affected by weather, Rec. V, 652.
 - per acre, Rec. IV, 673.

Sugar cane—

- affected by *Tylenchus scandens*, Rec. XI, 759.
- agricultural chemistry, Rec. VIII, 394.
- amid, Rec. IX, 720; X, 117.
- analyses, Bul. 2, I, 71; Rec. II, 147, 149, 570, 572, 643; III, 863; IV, 145, 340, 722; V, 159; VI, 39, 40, 216, 295, 808; VII, 581; VIII, 688; IX, 638; X, 347, 546; XI, 213; XII, 378, 439.
- animals injurious, Rec. X, 661.
- as affected by—
 - chlorin in soils, Rec. VI, 295.
 - flowering, Rec. VII, 300.
 - rain, Rec. X, 929.
 - stripping, Rec. III, 861; VII, 300.
 - superphosphate, Rec. I, 68.
 - weather, Rec. VII, 300.
- ash analyses, Rec. VII, 365.
- bacteria, Rec. VIII, 706; XI, 714.
- black rot, Rec. X, 57.
- black rot—
 - due to *Hypocrea sacchari*, Rec. VI, 311.
 - due to *Thielaviopsis ethacetica*, Rec. VI, 311.
 - in East Java, Rec. VI, 311.
- blight, notes, Rec. III, 278.
- borer—
 - East Indian, Rec. IV, 284.
 - notes, Rec. II, 644; IV, 852; VI, 235; VIII, 69, 320, 506, 996.
 - parasite, Rec. II, 644.
- borers of Java, Rec. X, 570.
- breeding, Rec. XI, 843.
- carabid injuring, Rec. VII, 698.
- cellulose in, Rec. VII, 648.
- chemical—
 - development, Rec. XI, 644.
 - physiological examination, Rec. VIII, 286; IX, 1023.
 - physiology, Rec. VII, 955.
 - selection, Rec. XI, 843.
- chips, analyses, Rec. II, 55.
- classification, Rec. VI, 39.
- comparative tests, Rec. VII, 498.
- composition, Rec. XII, 850.
- composition at different stages of growth, Rec. III, 278, 863.

Sugar cane—Continued.

- condition—
 - 1892, Rec. IV, 283, 431.
 - October, 1893, Rec. V, 328.
- constituents, Rec. XI, 146.
- cost of production, Rec. X, 1039.
- culture, Rec. III, 604; X, 347; XI, 443, 1038.
- culture—
 - experiments, Rec. II, 411; III, 325, 604, 861; IV, 141, 821; VI, 46, 722, 808; XI, 734; XII, 438, 440.
 - in Ecuador, Rec. XII, 339.
 - Florida, Rec. VIII, 402.
 - France, Rec. IX, 45.
 - Hawaiian Islands, Rec. XII, 742.
 - India, Rec. X, 847.
 - the Straits Settlements, Rec. VII, 765.
- cuttings, selection of, Rec. X, 546.
- degeneration, Rec. VI, 295, 418.
- determination of—
 - cellulose, Rec. VI, 111, 273.
 - density, Rec. X, 715.
 - sugar in, Rec. VI, 274.
- diseases, Rec. IV, 373; V, 354, 653, 820, 1031; VI, 62, 307, 311, 312; VII, 38, 39, 224, 311, 410, 581, 695; VIII, 237, 317, 499; IX, 129, 362, 457, 659; X, 266, 971, 1057; XI, 759; XII, 155, 261, 1056.
- diseases—
 - in Antilles, Rec. X, 971, 975.
 - Jamaica, Rec. VI, 432.
 - Java, Rec. X, 57, 457.
 - Mauritius, Rec. VI, 437.
 - South Queensland, Rec. VI, 560.
 - West Indies, Rec. VI, 436.
- treatment, Rec. VI, 436.
- distribution, Rec. III, 444.
- "Dongkellan," disease, Rec. X, 266, 1057.
- effect of fertilizers on, Rec. VII, 678.
- eye spot, Rec. X, 57.
- experiments in—
 - California, Rec. V, 587.
 - India, Rec. V, 333.
 - Louisiana, Rec. V, 134, 979.
 - West Indies, Rec. VI, 307.
- fertilizer experiments, Bul. 2, I, 72; Rec. I, 65, 66, 67; III, 862; VI, 295, 543, 808; VII, 390, 678; VIII, 394; IX, 129, 640; X, 41, 547, 750; XI, 734, 840, 841; XII, 47, 439, 440.
- fertilizers for, Rec. II, 149, 152, 154, 569, 571, 643; XI, 241.
- fertilizing ingredients removed by crop, Rec. XII, 1034.
- field experiments, Rec. IV, 787.
- for forage, Rec. XII, 331.
- foreign varieties, Rec. II, 570.
- fungi affecting, Rec. VIII, 237.
- fungus diseases, Rec. V, 653; VI, 233, 311, 560; VIII, 237, 607.
- germination, Rec. I, 63.
- glycocoll in, Rec. IX, 720.
- glycolic acid in, Rec. X, 919.
- growing from seeds, Rec. II, 151; X, 955.
- grub—
 - carbon bisulphid for, Rec. VIII, 70.
 - remedies, Rec. XI, 957.
- gummings, Rec. V, 821.
- gummosis, Rec. V, 821; VII, 513, 695; X, 56; XII, 61.

Sugar cane—Continued.

- improvement, Rec. VII, 765.
- improvement by selection, Rec. II, 568; V, 134, 1030; XII, 338.
- injury by Homoptera, Rec. VIII, 69.
- insects affecting, Rec. III, 278; IV, 284; V, 514; VI, 312, 317, 560, 655; VII, 147, 881; VIII, 69; X, 975; XII, 162, 1067.
- irrigation, Rec. XII, 441.
- irrigation experiments, Rec. III, 861; XII, 842.
- laboratory mill, Rec. VII, 559.
- Lahaina, Rec. VI, 722.
- land, drainage, Rec. I, 66.
- leaf—
 - borers, Rec. VIII, 320; X, 661.
 - disease, Rec. V, 821.
 - miners, Rec. X, 661.
 - spot, Rec. X, 57.
- leaves—
 - analyses, Rec. X, 678.
 - as a feeding stuff, Rec. XI, 883.
 - ash analyses, Rec. XII, 626.
- lecithin, Rec. X, 117.
- Lepidoptera injuring, Rec. X, 167.
- "Leptomin" in, Rec. XI, 146.
- manufacture of sugar from, Rec. II, 643; III, 389; IV, 722, 843; VI, 344; X, 347.
- manufacture of sugar from—
 - by diffusion process, Rec. I, 73.
 - clarification of juice, Rec. III, 389; VII, 529; IX, 196.
 - purification of juice, Rec. VII, 719.
- manuring, Rec. VI, 295.
- meteorological conditions favorable to, Rec. II, 569.
- mineral constituents, Rec. IX, 745.
- moth borer, notes, Rec. VI, 567; XII, 661.
- nitrogen content, Rec. VI, 808.
- nodes and internodes, Rec. VI, 17.
- notes, Rec. V, 587; XII, 843.
- parasites, Rec. X, 570, 769.
- part for seed, Rec. II, 151.
- "pedigreeing," Rec. VII, 677.
- pest, Australian, Rec. VIII, 906.
- pin borer, Rec. IV, 285, 373.
- pineapple disease, Rec. V, 1099; VIII, 499
- plants—
 - lice, Rec. VIII, 320; XI, 66.
 - v. stubble cane for seed, Rec. I, 64; II, 151, 570; III, 862.
- planting—
 - at different distances, Rec. I, 64, 65; II, 152, 569; III, 861; V, 980; VI, 295.
 - different number of stalks, Rec. III, 862.
 - different parts, Rec. III, 862; V, 981; VI, 295, 543.
 - methods, Rec. XII, 1033.
- products, analyses, Rec. XII, 107.
- purchasing, Rec. XI, 146.
- red rot, Rec. VIII, 237; X, 57.
- red smut, Rec. V, 1031, 1100; VI, 62, 311; VIII, 499.
- red spot, Rec. X, 57.
- reducing substances, Rec. VII, 271, 362.
- reversion of saccharose, Rec. VI, 295.
- Rhynchotes injuring, Rec. VIII, 69.
- rind fungus, Rec. VII, 788.

Sugar cane—Continued.

- ring spot, Rec. X, 57.
 - root—
 - disease, Rec. V, 821; VII, 310.
 - molds, Rec. VIII, 317.
 - rot, Rec. X, 57.
 - rust, notes, Rec. III, 278; X, 57.
 - scale insects, Rec. X, 661; XI, 476.
 - seed variation, Rec. V, 1030.
 - seeding experiments, Rec. XII, 441.
 - seedlings, Rec. V, 925; VI, 295; VII, 955; IX, 129; XII, 642.
 - seedlings, analyses, Rec. XI, 643.
 - "sereh" disease, Rec. X, 57, 457, 764.
 - shot borer, notes, Rec. VII, 1067.
 - sirup, Rec. VI, 46.
 - sirup making, Rec. IV, 843; X, 347.
 - smut, Rec. X, 57; XII, 572.
 - soil—
 - investigations, Rec. VI, 295.
 - wastes, Rec. VIII, 596.
 - sour rot, Rec. VII, 788; VIII, 237; X, 57.
 - sprouts, analyses, Rec. X, 678.
 - striped v. purple, Rec. III, 863.
 - studies, Rec. X, 433; XI, 443.
 - suckering, Rec. I, 64.
 - sugar content, Rec. VI, 344; VIII, 688.
 - sugar content as affected by arrowing or flowering, Rec. XI, 146.
 - top rot, Rec. X, 57.
 - topping and windrowing, Rec. VI, 40.
 - treatise, Rec. IX, 833; XII, 47.
 - varieties, Bul. 2, I, 72; Rec. I, 65; II, 152, 411, 568, 570; III, 862; IV, 340, 722; V, 1030; VI, 39, 295, 411, 543; VII, 300, 390, 498, 581, 765; VIII, 395; IX, 129, 638; X, 41; XI, 643, 840, 841; XII, 438, 441, 1033.
 - vitality of eyes, Rec. II, 151.
 - weevil in the Fiji Islands, Rec. VI, 740.
 - white plant louse, notes, Rec. XII, 869.
 - windrowed v. standing, Rec. VII, 492.
 - windrowing and topping, Rec. VI, 40.
 - windrowing for seed, Rec. VII, 495.
 - xanthin bases in, Rec. XI, 310.
 - yellow spot, Rec. X, 57.
 - yield, Rec. VI, 40; IX, 638.
- Sugars—
- ammonia derivatives, Rec. VII, 832.
 - analyses, Rec. III, 814.
 - as affected by alkalis, Rec. VII, 645.
 - Austro-Hungarian, composition, Rec. VII, 834.
 - availability as plant food, Rec. VII, 94.
 - behavior—
 - and effect in the body, Rec. XI, 971
 - in the animal body, Rec. V, 259.
 - toward alkaline copper solutions, Rec. VII, 272.
 - Bohemian, analyses, Rec. VII, 719.
 - characterization, Rec. IV, 313.
 - commercial, analysis, Rec. X, 96.
 - determination of water and ash in, Rec. IV, 221, 222, 388.
 - digestibility, Rec. IX, 780.
 - from fermentation of starch and glycogen, Rec. VI, 77.
 - glucosazone for the determination of, Rec. VII, 91.

Sugars—Continued.

- limit to assimilation of, Rec. II, 461.
- new method for qualitative distinction, Rec. VII, 648.
- preparation in pure state and separation, Rec. XI, 905.
- rate of fermentation, Rec. VI, 280.
- reaction with borax solution, Rec. V, 647.
- reducing—
 - determination, Rec. IV, 983; V, 1026; VI, 111, 273; VII, 738; XII, 106, 107.
 - in musts and wines, determination, Rec. XI, 509.
 - multirotation, Rec. VII, 557.
 - studies, Rec. VI, 504.
- review of literature, Rec. VI, 190, 273.
- separation, Rec. VIII, 284.
- Sulfarin as a preservative of manure, Rec. XII, 38.
- Sulfurin—
 - effect on potato plants, Rec. X, 560.
 - for potato scab, Rec. X, 1058.
- Sulla—
 - analyses, Rec. II, 580; III, 159; VII, 206.
 - culture, Rec. III, 159.
 - culture experiments, Rec. IV, 646; VI, 34, 531; VII, 206; VIII, 401.
 - description and history, Rec. X, 43.
 - fertilizing constituents, Rec. VII, 207.
 - notes, Rec. XII, 332.
- Sulla ("Northern lupine"), Rec. III, 51.
- Sulphate, carbonate, and chlorid of potash for grapes, Rec. V, 1095.
- Sulphate of ammonia— (*See also* AMMONIUM SULPHATE.)
 - analyses, Rec. I, 15; II, 101, 142, 154, 280, 481, 581; III, 8, 162, 168, 299, 444, 764; IV, 25, 27, 902; V, 288, 737, 777, 861; VI, 396, 631, 797; VII, 111, 195, 294, 295, 668, 670, 854; VIII, 563, 767, 966; IX, 538, 636, 919, 934, 939; X, 36, 230, 426, 428, 919, 1031, 1033; XI, 39, 438, 719, 830, 917; XII, 131, 626, 717, 840, 907, 931.
 - and dried blood for sugar cane, Rec. I, 66.
 - and nitrate of soda—
 - comparative action, Rec. IV, 222.
 - relative fertilizer value, Rec. XII, 529.
 - as a by-product of the iron industry, Rec. VII, 670.
 - a fertilizer, Rec. IV, 518; VI, 400; X, 735; XII, 131, 841, 843.
 - a top-dressing for garden crops, Rec. IX, 51.
 - cost of nitrogen from, Bul. 2, I, 39.
 - detection of adulteration, Rec. VI, 134.
 - determination of water in, Rec. VII, 294.
 - effect, Rec. X, 235, 533.
 - for barley, Rec. IV, 965.
 - carnations, Rec. III, 290.
 - corn, Rec. V, 778.
 - marsh soils, Rec. XII, 428.
 - oats, Rec. IV, 965; V, 1030; IX, 44.
 - potatoes, Rec. V, 715.
 - ruta-bagas, Rec. V, 706.
 - sugar cane, Rec. X, 41.
 - wheat, Rec. IV, 342; V, 705.
 - from coke, Rec. VII, 670.
 - harmful effects, Rec. VII, 377.
 - poisonous effects on soils, Rec. VIII, 571; IX, 937.

Sulphate of ammonia—Continued.

- soil treatment for potato scab, Rec. XII, 761.
- statistics of production, Rec. VII, 100; X, 427.
- v. nitrate of soda—
 - as a fertilizer, Rec. V, 225, 548; VIII, 39.
 - for cabbages, Rec. VIII, 600.
 - flax, Rec. V, 233.
 - grasses, Rec. V, 233.
 - peas, Rec. V, 233.
 - potatoes, Rec. V, 232.
 - sugar beets, Rec. VIII, 685.
 - wheat, Rec. V, 233; X, 848.
- water and free acids in, Rec. VII, 462.
- Sulphate of copper. (*See* COPPER SULPHATE.)
- Sulphate of iron— (*See also* IRON SULPHATE.)
 - as a fertilizer, Rec. VIII, 575; IX, 341.
 - effect on—
 - conservation of nitrogen in bare soils, Rec. III, 917.
 - nitrification, Rec. III, 917.
 - seed wheat, Rec. III, 357, 358.
 - experiments, Rec. III, 864.
 - fertilizing value, Rec. VII, 756.
 - for brown rot of stone fruits, Rec. III, 860.
 - chlorosis, Rec. VI, 312; VII, 411.
 - cranberry diseases, Rec. III, 307.
 - grape chlorosis, Rec. IX, 660.
 - grapevines, Rec. VII, 964.
 - potato rot, Rec. V, 425.
 - potato scab, Rec. II, 61.
 - potatoes, Rec. VII, 299.
 - purifying sewage, Rec. V, 436.
 - winter treatment of grapes, Rec. IX, 250.
 - in the soil, effect on cereals, Rec. III, 919.
 - reaction with phosphates, Rec. III, 927.
 - with arsenites, Rec. III, 175.
- Sulphate of lime. (*See* GYPSUM.)
- Sulphate of potash— (*See also* POTASSIUM SULPHATE.)
 - analyses, Bul. 2, II, 46; Rec. II, 101, 154, 232, 280, 481, 581; III, 162, 168, 299, 444, 764; IV, 25, 26, 27, 787, 902; V, 164, 487, 737, 777, 861; VI, 287, 396, 402, 631, 797; VII, 195, 294, 295, 380, 669, 670, 940; VIII, 389, 392, 561, 584, 682, 767, 877, 966; IX, 336, 436, 538, 636, 825, 919, 934, 939, 1044; X, 230, 426, 428, 716, 919, 1031; XI, 39, 137, 314, 830, 1026; XII, 129, 131, 626, 717, 840, 907, 931, 933.
 - and cotton-seed-hull ashes for tobacco, Rec. IX, 346.
 - magnesia. (*See* POTASH AND MAGNESIA SULPHATE.)
 - tankage for cotton, Rec. X, 628.
 - for barley and wheat, Rec. V, 712.
 - brown rot of stone fruits, Rec. III, 860.
 - carnations, Rec. III, 290.
 - potatoes, Rec. III, 874; IX, 39.
 - sugar beets, Rec. V, 1016.
 - tobacco, Rec. IV, 908, 909.
 - verbena mildew, Rec. III, 619.
 - influence on nitrification, Rec. V, 1012.
 - v. muriate of potash—
 - difference in action, Rec. X, 136.
 - for clover, Rec. IX, 340.
 - cotton, Rec. IX, 127.
 - potatoes, Rec. V, 291; VIII, 399; IX, 45.
 - tobacco, Rec. IV, 821.

Sulphate of soda. (*See* SODIUM SULPHATE.)

Sulphates—

action of aluminum on, *Rec. V*, 817.

excretion after ingestion of protein, *Rec. XII*, 871.

new method of conversion, *Rec. VIII*, 26.

"Sulphatine," analyses, *Rec. III*, 162; *V*, 206.

Sulphid of sodium for apple scab, *Rec. II*, 660.

Sulphine for bleaching molasses, *Rec. III*, 390.

Sulphite of soda for purification of sugar-beet juice, *Rec. V*, 349.

Sulphocarbonate of potassium. (*See* POTASSIUM SULPHOCARBONATE.)

Sulphocyanates—

determination, *Rec. IX*, 420.

in digestive liquids, *Rec. VII*, 248.

Sulphosteatite—

for currant spot disease, *Rec. V*, 59.

potato rot, *Rec. V*, 425.

powdered, for grain rust, *Rec. IV*, 955

Sulphur—

analyses, *Rec. XI*, 314.

and copper sulphate, determination of fineness, prize for, *Rec. XII*, 1100.

granulated tobacco, analyses, *Rec. X*, 426.

grease for horn flies, *Rec. V*, 63.

and kainit for—

potato scab, *Rec. IX*, 654.

soil rot of sweet potatoes, *Rec. IX*, 58.

and lime—

as a fungicide, *Rec. IX*, 458.

dip, *Rec. XI*, 191.

and tobacco mixture, analyses, *Rec. III*, 292, 523; *IV*, 25.

anhydrid, effect on plants in the greenhouse, *Rec. X*, 417.

as a fungicide, *Rec. XII*, 464.

an insecticide, *Rec. V*, 531.

compounds in arable soils, *Rec. III*, 637, 655.

content of urine in judging disease, *Rec. XI*, 483.

determination in—

organic substances, *Rec. XI*, 311, 813.

plants, *Rec. X*, 1004.

urine, *Rec. VII*, 559.

dip, experiments, *Rec. XI*, 997.

effect on root tubercles, *Rec. X*, 22.

evaporated, for—

cucumber mildew, *Rec. V*, 193.

mildews and insects in greenhouses, *Rec. I*, 83.

excretion, effect of muscular work, *Rec. IV*, 784.

flowers. (*See* FLOWERS OF SULPHUR.)

for animal parasites, *Rec. V*, 517.

California vine disease, *Rec. IV*, 499.

for celery—

blight, *Rec. IX*, 359.

leaf blight, *Rec. V*, 878; *X*, 265.

leaf spot, *Rec. X*, 265.

for grape—

black rot, *Rec. IX*, 363.

mildew, *Rec. IX*, 765.

powdery mildew, *Rec. VII*, 410.

for grapes during flowering, *Rec. VIII*, 63, 141.

grapevines, *Rec. XI*, 168.

onion smut, *Rec. III*, 11.

peach root galls, *Rec. IX*, 657.

Sulphur—Continued.

for potato—

diseases, *Rec. X*, 1051.

scab, *Rec. II*, 61; *III*, 619, 771; *V*, 493; *VIII*, 893; *IX*, 57, 147; *X*, 444, 967; *XI*, 468.

for red spiders, *Rec. VI*, 440.

rose mildew, *Rec. VIII*, 500; *X*, 764.

San José scale, *Rec. III*, 54.

for sweet potato—

black rot, *Rec. IX*, 147.

soil rot, *Rec. IX*, 655.

for tomato disease, *Rec. X*, 1054.

fumes—

for cucumber powdery mildew, *Rec. III*, 241.

lettuce mildew, notes, *Rec. IV*, 472.

in rearing silkworms, *Rec. VI*, 151.

granulated, analyses, *Rec. IX*, 935.

importance in plant growth, *Rec. XI*, 723.

in casein, *Rec. V*, 1009.

cotton-seed oil, *Rec. VII*, 364; *XI*, 619.

cows' milk, *Rec. V*, 260, 343, 949.

humus, nature and function, *Rec. III*, 578.

injurious effects on grapes, *Rec. XII*, 768.

powdered, for—

apple scab, *Rec. IV*, 170.

celery blight, *Rec. IV*, 929.

presence and function in plants, *Rec. III*, 654.

rains, *Rec. X*, 124.

refuse, analyses, *Rec. III*, 592.

soil treatment for potato scab, after effects, *Rec. XII*, 760.

vs. corrosive sublimate for potato scab, *Rec. X*, 363.

Sulphureted hydrogen apparatus, *Rec. V*, 251, 538, 728.

Sulphuric acid—

absorptive power of soils for, *Rec. VI*, 121.

as a fungicide, *Rec. VI*, 434.

a preservative for manure, *Rec. V*, 330.

a reagent in the analysis of fatty acids, *Rec. X*, 115.

determination, *Rec. VIII*, 105, 201, 663; *IX*, 617.

determination—

in presence of iron, *Rec. XI*, 705.

wine and vinegar, *Rec. X*, 412.

wines, *Rec. XII*, 612, 716.

photo-metric method, *Rec. XII*, 307.

quantitative, *Rec. VIII*, 286.

effect on—

clover and sugar beets, *Rec. XII*, 45.

germination of hard seeds, *Rec. X*, 54.

for chlorosis, *Rec. VII*, 39.

grape anthracnose, *Rec. VI*, 647, 738; *X*, 156.

improvement in manufacture, *Rec. VI*, 170, 251.

in sugar manufacture, *Rec. VI*, 344.

wines, studies, *Rec. V*, 350; *VI*, 615; *VII*, 530.

manufacture, *Rec. XII*, 736.

preparation, *Rec. VII*, 271.

preparation of standard solutions, *Rec. XI*, 310; *XII*, 1005.

solutions, titration, *Rec. IX*, 621.

standardization, *Rec. VII*, 653.

tables, *Rec. VI*, 377.

tests for butter and margarine, *Rec. V*, 126.

to check fermentation of urine, *Rec. XI*, 229.

- Sulphuric acid—Continued.
 volumetric—
 determination, Rec. X, 314.
 method, Rec. IX, 617.
- Sulphuric anhydrid, effect on soil, Rec. VII, 664.
- Sulphuring of—
 dried fruit, Rec. II, 98; III, 592, 685; V, 589.
 hops, Rec. VIII, 499.
 wines, Rec. V, 928.
- Sulphurous acid—
 and salts, poisonous properties, Rec. VIII, 330.
 effect on—
 color of meat, Rec. XI, 279.
 firs, Rec. VII, 775.
 grape must, Rec. VII, 463.
 sucrose, Rec. VII, 718.
 for inversion of sugar, Rec. IX, 25.
 gas for Oidium, Rec. VII, 39.
- Sulphurous oxid for wheat smut, Rec. II, 221.
- Sumac—
 adulteration, Rec. IX, 522; X, 1005; XI, 22.
 analysis, Rec. XI, 22.
 beetle, jumping, notes, Bul. 2, I, 91.
 chemical study, Rec. III, 825.
 common smooth-leaved, notes, Rec. IV, 656.
 cut-leaved, notes, Rec. IV, 656.
 dwarf, notes, Rec. III, 521.
 for combating Phylloxera, Rec. XII, 870.
 hardy, culture, Rec. X, 641.
 low, notes, Rec. III, 521.
 notes, Rec. XII, 1045.
 plant-louse gall, tannin in, Rec. IV, 668.
 poison, notes, Rec. IX, 527; X, 516.
 smooth, notes, Rec. III, 521.
 staghorn, notes, Rec. IV, 656.
 tannic acid content, Rec. VII, 775.
- Summer—
 hot winds of the Great Plains, Rec. V, 1035.
 operations in woodlands, Rec. VI, 223.
- rape—
 analyses, Rec. VI, 294.
 culture, Rec. IV, 661.
 notes, Rec. VI, 294; VIII, 703.
- septicemia of cattle and horses, Rec. IV, 843.
- squashes, varieties, Rec. II, 669.
- Sun—
 and frost cracks on oaks, Rec. VI, 144.
 and moon—
 declination as related to barometer move-
 ments, Rec. VI, 789.
 effect on atmosphere, Rec. VIII, 964.
 effect on barometric pressure, Rec. VII,
 475.
 observations in France, Rec. X, 930.
 printing, Solandi process, Rec. V, 663; VI, 486,
 785.
 relation to nature, Rec. X, 613.
- scald—
 notes, Rec. XI, 173.
 of chestnuts, notes, Rec. XI, 362.
 prevention, Rec. IX, 363.
- spots, Rec. XI, 429.
- spots—
 and the weather, Rec. VII, 474; X, 1020.
 relation to rainfall, Rec. XI, 31; XII, 724.
 total eclipse May 28, 1900, Rec. X, 419.
- Sunburn, notes, Rec. VIII, 999; XI, 254.
- Sundance farm, location, Rec. V, 568.
- Sunflower— (See also *HELIANTHUS ANNUUS*.)
 disease caused by—
 Puccinia helianthi, Rec. X, 260.
 Septoria helianthi, Rec. X, 260.
 eradication, Rec. IX, 142.
 giant, culture experiments, Rec. V, 176.
 heads—
 as a silage crop, Rec. VIII, 778.
 with seed, analyses, Rec. V, 631.
 hulls, analyses, Rec. V, 64, 65.
 oil, Rec. VII, 529.
 oil as an adulterant of oleomargarine, Rec. IV,
 986.
 perennial double, notes, Rec. IV, 654.
 Russian culture experiments, Rec. V, 176.
- seed—
 analyses, Rec. V, 64, 65; XI, 314.
 for poultry, Rec. VII, 986.
 globulin, analysis, Rec. IX, 517.
 lecithin content, Rec. V, 803.
 proteids, Rec. IX, 516.
- seed cake—
 analyses, Rec. VII, 708; VIII, 153.
 as a feeding stuff, Rec. V, 654, 724, 969,
 1032, 1101.
 digestibility, Rec. X, 1083.
 for cows, Rec. IV, 389, 508; IX, 887.
 sheep, Rec. X, 780.
- seeds—
 apparatus for separating from heads, Rec.
 VIII, 491.
 coloring matter, Rec. VI, 115.
 stalks and leaves, analyses, Rec. V, 631.
 stem blight, notes, Rec. IX, 656.
- Sunflowers—
 analyses, Rec. IX, 866.
 and clover hay, value for milk production,
 Rec. V, 634.
 as a cattle food, Rec. VI, 468.
 a money crop, Rec. VIII, 976.
 a silage crop, Rec. IX, 866.
 cultivation and utilization, Rec. X, 147.
 culture, Rec. IV, 725; V, 264.
 culture—
 and feeding, Rec. IX, 1048.
 experiments, Rec. III, 82; VI, 424, 732,
 886; X, 244.
 in Russia, Rec. XI, 644.
- germination—
 as affected by light, Rec. XII, 1049.
 tests, Bul. 2, I, 30.
- history, Rec. XI, 454.
 notes, Rec. X, 343, 397, 760; XI, 354, 833.
 varieties, Rec. III, 85; V, 623; VI, 416; VIII,
 975; X, 238; XI, 251, 631; XII, 329.
- Sunlight, effect on—
 bacteria in milk, Rec. XII, 1080.
 germination of seeds, Rec. XII, 1049.
 plants, Rec. XI, 420.
 tetanus culture, Rec. VI, 969.
- Sunn hemp—
 culture experiments, Rec. VIII, 492.
 notes, Rec. VI, 207.
- Sunrise and sunset cloud phenomena, Rec. X,
 1018.
- Sunshine, Rec. VIII, 111.

Sunshine—

- and cloudiness in Nebraska, Rec. X, 616.
- snowfall, Rec. X, 124, 327.
- available for crops, Rec. III, 317.
- measured by selenium, Rec. XI, 222.
- recorder, improved, Rec. IX, 814, 817.
- records, Bul. 2, II, 139; Rec. II, 393; III, 396, 405.
- temperatures, observations, Rec. II, 495.

Sunstroke weather of August, 1896, Rec. VIII, 676.

Superphosphate—

- absorptive power of soils for, Rec. VI, 121.
- and slag, relative value, Rec. V, 924; VI, 522; VII, 110.
- change in weight on exposure to the air, Rec. XII, 428.
- double, analyses, Rec. VIII, 563; X, 919.
- effect on—
 - sucrose, Rec. VII, 718.
 - summer grains, Rec. V, 924.
- for barley, Rec. V, 704, 712; VI, 542; X, 244.
- cabbages, Rec. V, 716.
- cereals in the spring, Rec. IX, 1048.
- corn, Rec. V, 1071.
- cotton, Rec. V, 174, 976; VI, 885.
- cowpeas, Rec. V, 780.
- destroying weeds, Rec. XII, 250.
- grasses and pasture lands, Rec. V, 710.
- oats, Rec. VI, 542.
- peach trees, Rec. V, 397.
- potatoes, Rec. V, 715.
- ruta-bagas, Rec. V, 706, 713.
- soy beans, Rec. V, 780.
- sugar beets, Rec. IX, 241; XI, 540.
- summer grass, Rec. V, 924.
- sweet potatoes, Rec. V, 780.
- tobacco, Rec. V, 865.
- turnips, Rec. V, 709.
- wheat, Rec. V, 705, 708, 712.

gypsum, Rec. VIII, 40.

- gypsum, as a preservative for manure, Rec. V, 330.
- of lime, analysis, Rec. V, 621.
- on chalk soils for turnips, barley, and clover, Rec. V, 708.
- v. raw-bone meal for cotton, Rec. IX, 127; X, 140.

Superphosphates—

- analyses, Bul. 2, I, 22; Bul. 2, II, 39; Rec. I, 184; II, 5, 12, 127, 227, 272, 481; III, 523; V, 288, 737, 861, 976; VI, 287, 401, 402, 797, 798; VII, 88, 109, 111, 112, 195, 295, 854, 940; VIII, 117, 561, 584, 767, 877; IX, 336, 825, 919, 939, 1044; X, 230, 428, 1031; XI, 39, 138, 438, 528, 719, 830, 917, 1026; XII, 131, 717, 840, 931.
- apparatus for extracting, Rec. IV, 692.
- arsenic in, Rec. V, 1011; XI, 331.
- as a preservative of barnyard manure, Rec. XI, 135, 829.
- assimilation of phosphoric acid, Rec. VII, 487.
- average composition, 1880-88, Bul. 2, I, 173.
- behavior of sandy soil toward, Rec. II, 457.
- bone v. mineral, Rec. VII, 670.
- culture experiments, Rec. II, 483.
- determination, Rec. XI, 112.
- determination of phosphoric acid in, Rec. VI, 270; X, 410, 513.
- drying, Rec. X, 735.

Superphosphates—Continued.

- fluorin in, Rec. V, 539.
- from phosphates rich in—
 - arsenic, Rec. III, 655.
 - iron, Rec. IV, 388.
- grinding apparatus, Rec. X, 136.
- hydrofluoric acid in, Rec. VII, 490.
- manufacture, Rec. II, 491; VII, 110.
- metaphosphoric—
 - acid in, Rec. VII, 88.
 - and pyrophosphoric acid in, Rec. IX, 325; X, 19.
- methods of detecting adulteration, Rec. X, 1003; XI, 104.
- nitrogenous—
 - analyses, Rec. IX, 538; X, 230.
 - and guano, analyses, Rec. XI, 719.
 - cost and valuation, Bul. 2, I, 40.
 - loss of nitrogen, Bul. 2, II, 68.
 - preparation, Rec. II, 229; V, 228; XII, 1025.
 - production, Rec. VII, 198; X, 533.
 - reversion, Rec. VI, 978; XII, 131.
 - studies, Rec. VII, 854.
 - use during summer, Rec. IX, 36.
 - value of phosphoric acid, Rec. IX, 826.
 - variability in composition, Rec. VII, 490.
 - v. raw phosphates, Rec. II, 483.
 - water-soluble phosphoric acid in, Rec. II, 611, 757; V, 520; VI, 369, 626.
- Support for berry bushes, Rec. VI, 221.
- Suppuration, bacteriology of, Rec. IV, 868, 873.
- Surface—
 - tension of solutions, Rec. IV, 17.
 - washing of soils as a cause of loss of soil fertility, Rec. IX, 932.
- Surgery, handbook, Rec. XII, 94.
- Surveying in technical institutes of Italy, Rec. IV, 330.
- Susliks. (*See* SPERMOPHYTES.)
- Susserlin for hog cholera, Rec. XI, 696, 895; XII, 294.
- Swainsonia*—
 - galegifolia*—
 - effect on sheep, Rec. IX, 653.
 - poisonous to stock, Rec. XI, 1057.
 - sp., notes, Rec. VI, 335.
- Swallow-tail butterfly, black, notes, Bul. 2, II, 58.
- Swamp—
 - cane, analyses, Rec. V, 64, 65.
 - cedar as host of Gymnosporangium, Rec. II, 711.
 - chess, analyses, Rec. VI, 404.
 - hay, analyses, Rec. VIII, 426; IX, 786.
 - land, fertilizer experiments, Rec. V, 436.
 - muck, analyses, Rec. V, 775, 777; XII, 531.
 - rose mallow, for fiber, Rec. VI, 207.
 - soils. (*See* SOILS, SWAMP.)
 - sphenophorus, notes, Rec. II, 81.
- Swamps—
 - management, Rec. VIII, 872.
 - reclamation, Rec. IX, 536.
- Swarm spores of Pythium and Ceratiomyxa, Rec. VI, 487.
- Swedish—
 - cheese manufacture, development, Rec. V, 928, 1033, 1061.
 - herd milk, fat content, Rec. IV, 778.

Swedish—Continued.

- leguminous plants, Rec. V, 808.
- Moor Culture Association, Rec. IX, 716.
- Seed Association, report, Rec. V, 821.
- Seed Corn Association, Rec. IX, 716.
- Thomas phosphate, analyses, Rec. VII, 669.
- turnips. (See RUTA-BAGAS.)

Sweden—

- agricultural colleges in, Rec. IX, 706.
- agricultural technical industries, development, Rec. X, 599.
- chemical control stations, reports, Rec. IX, 380; X, 414; XII, 213.
- Department of Agriculture (Stockholm), report, Rec. IX, 398; XI, 197.
- Entomological—
 - Institute, Albano, report, Rec. X, 571.
 - Station, Albano, Rec. XI, 66; XII, 271.
- Experiment Station, Albano, Rec. IX, 715.
- Experiment Station, Albano—
 - chemical department, Rec. XII, 1008.
 - horticultural department, Rec. IX, 1054.
- Royal Agricultural Academy, reports, Rec. VII, 994; IX, 98.
- Royal Agricultural College, report of horticulturist, Rec. VII, 504.
- Royal Veterinary Institute, report, Rec. VII, 618, 712.
- Seed control in, Rec. IX, 1004, 1099.
- Seed Control Station, report, Rec. VII, 218, 690; X, 554; XI, 156, 750; XII, 252.

Sweet clover—

- analyses, Rec. II, 580; III, 158, 629; V, 171; VI, 274, 294, 404, 406; VII, 296; X, 72.
- as a forage plant, Rec. III, 30; IX, 469.
- a green manure for heavy soils, Rec. V, 701.
- a soil renovator, Bul. 2, I, 23.
- culture, Rec. III, 158.
- culture experiments, Rec. I, 122; II, 580; IV, 39, 248, 646, 661; V, 38, 171, 808; VI, 145, 531, 542, 807; VII, 115, 295, 296; VIII, 401, 970; X, 244.
- fertilizer experiments, Rec. I, 80.
- for bees, Rec. V, 102; IX, 469.
- green manuring with, Rec. IV, 315; V, 701.
- leaf movement, Rec. IV, 522.
- notes, Bul. 2, I, 189; Rec. I, 80; II, 580, 601, 650, 658; III, 30, 51, 158, 159; IV, 47; V, 577, 625, 679; VI, 294; X, 147, 244; XII, 827.
- root—
 - system, Rec. IV, 46.
 - tubercles, Rec. V, 855.
- studies, Rec. X, 147.
- yellow—
 - analyses, Rec. VI, 404.
 - for green manure, Rec. XI, 833.

Sweet corn—

- analyses, Rec. I, 250; II, 23, 43, 117, 486, 582, 744; IV, 39, 59, 177; V, 194, 794; XI, 737.
- and field corn, comparison, Rec. V, 781.
- soy bean for silage, Rec. VII, 30.
- bacterial disease, Rec. IX, 1056, 1062; X, 862.
- classification of varieties, Rec. II, 561.
- cross-fertilization experiments, Rec. XII, 353.
- culture, Rec. IX, 357.
- culture experiments, Rec. VI, 296, 985; VII, 120; VIII, 313, 407, 700; IX, 244.
- double cropping with beans, Rec. XI, 737.

Sweet corn—Continued.

- Eastern *v.* Western seed, Rec. II, 23, 485.
 - effect of removing suckers, Rec. XII, 549.
 - feed, analyses, Rec. XII, 169, 282, 877.
 - fertilizer experiments, Rec. V, 35; VI, 811; VIII, 406, 486; XI, 446, 737.
 - fertilizing constituents, Rec. II, 653.
 - field experiments, Rec. II, 19, 412, 561, 637.
 - fodder—
 - analyses, Rec. VIII, 426; IX, 786; XI, 882.
 - as a soiling crop, Rec. V, 992.
 - digestibility, Rec. IV, 569; VIII, 423; XI, 874.
 - food constituents, Rec. II, 653.
 - for silage, Rec. IV, 39.
 - forcing, Rec. XI, 146, 599.
 - loss of food and manurial value in selling, Rec. II, 653.
 - notes, Rec. X, 547; XI, 850; XII, 50, 936.
 - planting at different distances, Rec. IV, 157.
 - relation of parts of plant, Rec. II, 653.
 - silage, analyses, Rec. I, 250; IV, 177; V, 794; VIII, 508.
 - soaking before planting, Rec. XII, 549.
 - souring, Rec. X, 123.
 - stover, analyses, Rec. IV, 177.
 - sugar content, Rec. II, 23, 582.
 - susceptibility of varieties to—
 - Pseudomonas stewarti*, Rec. X, 1051; XI, 751.
 - smut, Rec. XI, 751.
 - varieties, Bul. 2, I, 33, 67; Bul. 2, II, 88, 135; Rec. I, 33, 35, 122, 254; II, 19, 29, 51, 62, 392, 395, 485, 515, 561, 583, 596, 637, 641, 659, 669; III, 30, 85, 395, 402, 480, 610, 703, 724, 781, 792, 807; IV, 650, 828; V, 53, 189, 870, 1074; VI, 52, 142, 218, 548; VII, 120, 124, 213, 302, 405, 863; VIII, 231, 783, 790, 791, 889, 977; IX, 244, 351; X, 354; XI, 250, 442.
 - v.* dent corn for cows, Rec. X, 289.
 - yield, Rec. IV, 39.
 - yield and food value per acre, Rec. IV, 568.
- Sweet grass, Rec. IX, 758.
- Sweet gum, notes, Rec. V, 884.
- Sweet peas—
- classification, Rec. VIII, 602; XII, 347.
 - culture, Rec. VIII, 131; IX, 357; X, 49; XII, 451.
 - history, Rec. IX, 358; XII, 247.
 - improvement, Rec. X, 352.
 - in Canada, Rec. XI, 1049.
 - notes, Rec. X, 448.
 - sowing, Rec. VII, 772.
 - varieties, Rec. VIII, 132; IX, 357, 358, 562, 951; XI, 454; XII, 347.
- Sweet pepper bush, notes, Rec. IV, 655.
- Sweet potato—
- beetle, notes, Rec. VI, 235; VII, 684; XI, 62; XII, 465.
 - beetle, two-striped, notes, Rec. III, 309.
 - black rot—
 - influence of fertilizers, Rec. III, 704.
 - investigations, Rec. III, 703.
 - notes, Rec. II, 416; III, 307, 327; IV, 51; VI, 987; VII, 684.
 - treatment, Rec. III, 689; IV, 55; IX, 147.
 - disease, new, Rec. VII, 695.

Sweet potato—Continued.

- diseases, Rec. III, 307.
- diseases, treatment, Rec. III, 307; XI, 260.
- dry rot, notes, Rec. II, 416; VI, 987.
- fllea-beetles—
 - notes, Rec. V, 403.
 - remedies, Rec. XI, 62.
- flour, analysis, Rec. XII, 476.
- fungus diseases, Rec. II, 416; XII, 656.
- leaf blight, notes, Rec. II, 416; VI, 987.
- leaf mold, notes, Rec. II, 416; IV, 51.
- plume moth, notes, Rec. XI, 62.
- prodenia, remedies, Rec. X, 972.
- ring rot, notes, Rec. VII, 691.
- root borer—
 - notes, Rec. VI, 235; VII, 684.
 - remedies, Rec. XI, 62.
- rot—
 - notes, Rec. I, 265; II, 416; III, 297.
 - treatment, Rec. XI, 753.
- sawfly, description, Rec. IV, 372.
- scurf, notes, Rec. II, 416; VI, 987; VII, 684.
- soft rot, notes, Rec. VI, 987; VII, 684; XII, 61.
- soil rot, Rec. II, 416; III, 297, 703; IX, 58, 655.
- soil rot—
 - notes, Rec. IV, 51; VI, 824, 987; VII, 781; VIII, 893.
 - treatment, Rec. III, 704; VIII, 894; IX, 58; XII, 351.
- stem rot, notes, Rec. II, 416; VI, 987; VII, 684; IX, 655.
- tops as forage, Rec. V, 872.
- vine cuttings, Rec. VI, 545.
- vines—
 - analyses, Rec. I, 198; III, 148; VI, 986.
 - pruning, Rec. V, 188; VI, 544.
- weevil—
 - in Jamaica, Rec. V, 514.
 - notes, Rec. XII, 465.
- white-leaf scab, notes, Rec. VI, 987.
- white mold, notes, Rec. II, 416; IV, 51; V, 399.
- white rot, notes, Rec. VI, 987.
- wild, notes, Rec. III, 893.

Sweet potatoes—

- analyses, Bul. 2, I, 181; Rec. III, 148, 284, 698, 884; IV, 59, 175; V, 872; VI, 812; VII, 685; VIII, 561, 623; IX, 754; XII, 1076.
- canned, analyses, Rec. V, 220.
- composition as affected by fertilizers, Rec. III, 884.
- crop statistics, Rec. VI, 582.
- cultivation—
 - early *v.* late, Rec. II, 71, 74.
 - ridge *v.* level, Rec. VI, 811.
- culture, Rec. X, 433, 551.
- culture—
 - and uses, Rec. VI, 986.
 - experiments, Bul. 2, I, 21; Rec. II, 149, 317, 555, 643, 717; III, 284, 695; VI, 212; VII, 121, 684; VIII, 308, 407; IX, 243; XII, 1036.
 - in the United States, Rec. IV, 726.
 - determination of starch, Rec. IX, 619.
 - digestibility, Bul. 2, I, 181.
 - effect of fertilizers on, Rec. II, 485, 555.
 - evaporated, Rec. V, 1085.
 - feeding value, Rec. XII, 981.

Sweet potatoes—Continued.

- fertilizer experiments, Bul. 2, I, 109, 188; Rec. I, 3, 132; III, 284, 300, 695, 698, 884; IV, 39, 726; V, 187, 393, 394, 575, 780, 865; VI, 811, 812; VII, 682; VIII, 885; X, 548; XI, 146, 446; XII, 941.
 - fertilizers for, Rec. VI, 819.
 - fertilizing ingredients, Rec. IX, 695.
 - growing under glass in summer, Rec. XII, 1039.
 - moving vines, Rec. V, 189; VI, 544, 811.
 - notes, Rec. X, 547; XII, 340.
 - origin and botany, Rec. V, 872.
 - planting—
 - at different distances, Rec. II, 555; V, 187; VI, 544, 812.
 - by different methods, Rec. V, 187.
 - different-sized roots, Rec. III, 589.
 - on ridges of different heights, Rec. VI, 544.
 - preservation, Rec. I, 27.
 - selection and preparation of slips, Rec. V, 188; VI, 986.
 - starch content, Rec. IX, 619, 695.
 - storage, Rec. IV, 252; VI, 986; VII, 581; IX, 695; X, 47.
 - storage in winter, Rec. V, 1085.
 - varieties, Bul. 2, I, 109; Rec. I, 254; II, 372, 598, 659; III, 85, 284, 402, 695, 698, 763; IV, 145, 352, 726, 727; V, 187, 872; VI, 212, 545, 812, 819, 902, 986, 987; VII, 129, 405, 684; VIII, 407; IX, 244.
 - v.* corn meal for pigs, Rec. X, 579.
 - yield, Rec. IV, 825.
- Sweet sage, notes, Rec. VII, 947.
- Sweet-scented garlic, Rec. VIII, 892.
- Sweet vernal grass—
- analyses, Rec. VI, 403; XII, 471.
 - as a forage plant, Rec. III, 29.
 - culture experiments, Rec. II, 633; III, 860; IV, 38.
 - notes, Rec. II, 601; VII, 384.
- Swift moth, Rec. VIII, 612.
- Swill ashes, analyses, Rec. IV, 903; VI, 287, 522; VII, 294.
- Swine— (*See also* PIGS.)
- air-bladder, mesentery of, Rec. XII, 95.
 - anthrax, Rec. VII, 805.
 - diseases, Rec. IX, 95, 891.
 - diseases—
 - Beck's serum for, Rec. XI, 290.
 - epidemic, report, U. S. Board of Inquiry, Rec. III, 729.
 - in New York, Rec. XI, 492.
 - infectious, in Massachusetts, Rec. XI, 1087.
 - investigation, Rec. I, 103, 107; VI, 243.
 - repression, Rec. V, 259.
 - treatment, Rec. XI, 189, 594.
 - endocarditis in, Rec. IV, 694.
 - erysipelas, Rec. VIII, 525; IX, 889, 893.
 - erysipelas—
 - notes, Rec. XII, 692.
 - vaccination for, Rec. V, 1033.
 - fecundity of, Rec. X, 280, 296.
 - fever. (*See* HOG CHOLERA.)
 - industry in North America, Rec. VI, 578.
 - lung disease, Rec. III, 152.

Swine—Continued.

- paralysis and crippling, Rec. XI, 997; XII, 391.
- plague, Rec. X, 296, 396.
- plague—
 - and hog cholera, distinguishing, Rec. XI, 696.
 - tuberculosis, Rec. VI, 575.
 - tuberculosis, differential diagnosis, Rec. XI, 1091.
- antitoxin experiments, Rec. X, 693.
- bacillus, description, Rec. XI, 492.
- cause and prevention, Rec. III, 254; XI, 797.
- differential diagnosis, Rec. XI, 985.
- experiments, Rec. XII, 898.
- immunity, Rec. VIII, 268.
- in Norway, Rec. XI, 693.
- Portugal, Rec. X, 999.
- inoculation experiments, Rec. V, 608; XII, 190.
- notes, Bul. 2, II, 119; Rec. XI, 290, 793, 895; XII, 692, 790, 892, 893.
- prevention, Rec. IX, 993.
- puerperal septicemia, treatment, Rec. XI, 797.
- quarantine experiments, Rec. VIII, 253.
- retention of virulence in milk, Rec. XI, 979.
- serum, preparation, Rec. XII, 395.
- serum, treatment, Rec. VIII, 428; XI, 89, 93, 696.
- studies, Bul. 2, I, 111; Rec. VII, 67; XI, 93, 191, 589; XII, 92.
- subcutaneous inoculations, Rec. XI, 594.
- treatment, Rec. VI, 665; VIII, 157; XI, 997; XII, 1093.
- septicemia, etiological studies, Rec. XI, 797.
- statistics of, Rec. II, 518.

Swiss—

- agricultural high schools, Rec. VIII, 837.
- Analytical Chemists' Association, annual meeting, Rec. V, 433, 543.
- cattle, Brown, notes, Rec. XI, 983.
- chard—
 - analyses, Rec. IX, 873.
 - spraying experiments, Rec. XII, 353.
- hay, analyses, Rec. V, 540.

Switch grass—

- analyses, Rec. V, 64, 65; VI, 403.
- as a forage plant, Rec. III, 51.
- hay, analyses, Rec. VIII, 810.
- notes, Rec. VIII, 780; X, 343.

Switzerland, agricultural investigations, Rec. VI, 681.

Sycamore—

- ash analyses, Rec. I, 26.
- blight, Rec. IX, 363.
- blight, notes, Rec. III, 810.
- disease caused by *Glæosporium nervisequum*, Rec. X, 260.
- forktail, notes, Bul. 2, II, 33.
- lachnus, notes, Rec. II, 673.
- leaf beetle, notes, Bul. 2, II, 33.
- leaf blight, Rec. X, 649.
- leaf disease, notes, Rec. XII, 255.

Sycamore—Continued.

- leaf spot, notes, Rec. XI, 759.
- leaves—
 - ash analyses, Rec. XII, 1006.
 - transportation of plant food, Rec. XI, 910.
- Sycamores— (See also PLANE TREES.)
 - affected by *Glæosporium nervisequum*, Rec. XI, 759.
 - notes, Rec. II, 512.
- Sylvanit, analyses, Rec. I, 191; II, 280, 481; III, 229.
- Sylviculture, principles of, Rec. XI, 1050.
- Symbiosis—
 - and parasitism, Rec. X, 416.
 - discovery, Rec. VIII, 867.
 - of *Helianthus tuberosus* and *H. annuus*, Rec. VI, 873.
 - Heterodera radicola* with plants in the Sahara, Rec. V, 926.
 - plants, Rec. VI, 969; VII, 372.
 - stock and graft, Rec. VII, 188, 309.
 - phenomena, Rec. IX, 421.
- Symbiotes felis*, bibliography, Rec. XI, 764; XII, 867.
- Symons, George James, notes, Rec. XII, 119.
- Symphoricarpos*—
 - occidentalis*, notes, Rec. III, 522.
 - racemosus*, notes, Rec. IV, 656.
 - racemosus pauciflorus*, notes, Rec. III, 522.
 - vulgaris*, notes, Rec. III, 522.
- Symphytum*—
 - asperillum*, notes, Bul. 2, I, 164; Rec. II, 329, 601; XI, 1032.
 - officinale*, notes, Rec. VI, 294; VIII, 124.
- Symptomatic anthrax. (See BLACKLEG.)
- "*Synathereas mexicanas*," notes, Rec. XII, 344.
- Synacarpia laurifolia*, notes, Rec. VI, 301; VII, 775.
- Synchlora glaucaria*, notes, Rec. IV, 839.
- Synchytrium*—
 - papillatum*, notes, Rec. V, 648.
 - rugulosum*, notes, Rec. VII, 513.
 - vaccinii*, notes, Rec. I, 263; III, 297, 307; V, 800; VI, 559.
- Synergus, monograph, Rec. VII, 881.
- Syneta albida*, notes, Rec. IV, 284; VI, 313.
- Syngamus*—
 - laryngeus*, n. sp., description, Rec. XI, 92.
 - trachealis*. (See GAPEWORMS.)
- Synopeas* sp., notes, Rec. IX, 965.
- Synthesis of—
 - albuminoids, Rec. VI, 691.
 - proteids by plants, Rec. X, 726.
- Syntonin, determination in peptic digestion, Rec. XI, 971.
- Syphilis, transmission to calves, Rec. XII, 690.
- Syrian and Carniolan bees, crossbreeding, Rec. II, 496.
- Syringa—
 - bacterial disease, Rec. XII, 360.
 - golden leaf, Rec. VIII, 314.
- Syringa vulgaris*—
 - mildew, Rec. X, 267.
 - notes, Rec. IV, 656.
- Syringe for bacteriological purposes, Rec. X, 123.
- Syromastes marginatus*, notes, Rec. X, 65.

Syrphus—*americanus*, notes, Rec. IV, 417.

sp., parasitic on white-pine chermes, Rec. X, 1065.

Syrphus fly, notes, Rec. VI, 741; X, 768.*Sysimbrium*—*alliarum*, cabbage grafted on, Rec. V, 1089.*atissimum*, notes, Rec. IX, 1055.*officinale*, notes, Rec. IX, 1055.*sinapistrum*, notes, Rec. VI, 415.*Systena*— (See also FLEA-BEETLES.)*blanda*, notes, Rec. II, 734; VI, 836; XI, 471; XII, 362.*frontalis*, notes, Rec. II, 5; XI, 952.*mitis*, notes, Rec. I, 12.*tæniata*—*blanda*, notes, Rec. XI, 952; XII, 575.

notes, Rec. V, 311, 593; VI, 150, 315; XI, 471.

Systæchus oreas, notes, Bul. 2, II, 93; Rec. VIII, 145.*Tabebuia palmeri*, notes, Rec. III, 103.

Tables for calculating fertilizer analyses, Rec. VI, 882.

Tabor, Bohemia, Agricultural Chemical Experiment Station at, report, Rec. VIII, 26.

Tachardia cornuta, notes, Rec. VI, 438.*Tachina*—*anonyma*, notes, Rec. II, 116.*bifasciata*, notes, Rec. II, 116.*rustica*, parasitic on silkworms, Rec. XI, 561. sp., notes, Rec. II, 115; VI, 63.*Tachina*—

flies, notes, Rec. VIII, 145; IX, 365, 855.

fly parasitic on—

army worm, Bul. 2, II, 94; Rec. VII, 312.

locust, Bul. 2, II, 93.

oak looper, Rec. III, 359.

Tachinid parasite, notes, Rec. XII, 770.

Tachinidæ of America north of Mexico, revision, Rec. X, 66.

Tachys sp., notes, Rec. VI, 150.

Tacamahac, notes, Rec. VI, 425.

Tadpole grass, notes, Rec. XII, 760.

Tæmasis, nodular, differential diagnosis, Rec. XI, 986.

Tænia—*bothriophitis* in fowls, Rec. IX, 96.*cænurus*—

in the calf, Rec. XI, 289.

notes, Rec. II, 79; IX, 693, 994.

echinococcus, notes, Rec. II, 79; IX, 693.*expansa*, notes, Rec. II, 79; IX, 693, 994.*fimbriata*, notes, Rec. II, 79; XI, 498.*marginata*, notes, Rec. II, 79.*polymorpha*, anatomy, Rec. IX, 1032.*tenella*, notes, Rec. II, 79.

Tæniidæ, classification, Rec. XI, 429.

Tæniocampa—*rufula*, notes, Rec. VI, 313.

sp., notes, Rec. III, 54.

Tag sore in Algeria, Rec. XII, 491.

Tagasaste—

adaptation, Rec. III, 596.

as a forage plant, Rec. V, 128.

culture experiments, Rec. VIII, 401, 687; X, 245.

notes, Rec. V, 577.

Taka diastase—

notes, Rec. X, 1017.

reducing power, Rec. XII, 22.

Talinum, new species, notes, Rec. IX, 28.

Tall meadow oat grass. (See MEADOW OAT GRASS, TALL.)

Tallow—

character as affected by food, Rec. XII, 583.

Chinese vegetable, Rec. VIII, 667.

effect on fat content of milk, Rec. IX, 388.

for cows, Rec. VII, 236; IX, 494.

hens, Rec. III, 707.

nut, notes, Rec. VIII, 231.

weed, notes, Rec. X, 147.

wood, notes, Rec. VI, 144.

Tamarack—

analyses, Rec. XI, 314.

notes, Rec. IV, 654.

pine, notes, Rec. VIII, 891.

Tamarind, notes, Rec. VI, 636.

Tamarinds for adulteration of wine, Rec. VI, 377.

Tamarix amurensis, notes, Rec. VIII, 314.

Tamarix, notes, Rec. III, 788.

Tamias, genus, notes, Rec. II, 258.

Tamias sp. in Idaho, Rec. III, 184.

Tan bark—

ash analyses, Rec. VIII, 767.

beetle, notes, Rec. XI, 954.

destruction by insects, Rec. IX, 962.

spent—

analyses, Rec. IV, 436; V, 538.

as litter, Rec. V, 144.

Tanacetum balsamita, notes, Rec. IV, 654.

Tankage—

analyses, Bul. 2, I, 22; Rec. I, 16, 80, 149; II, 101, 142, 275, 280, 481, 504, 581; III, 68, 162, 287, 299, 444, 536, 764; IV, 26, 337, 465, 902; V, 164, 165, 288, 290, 291, 777, 861; VI, 202, 401, 797, 882; VII, 195, 294, 380, 668, 757, 854, 940; VIII, 389, 392, 563, 767, 877, 880, 966; IX, 336, 339, 436, 538, 636, 825, 919, 934, 939, 1044; X, 36, 230, 426, 428, 919, 1031, 1033; XI, 39, 438, 528, 719, 830, 831, 917; XII, 129, 131, 225, 626, 907, 931.

as a fertilizer, Rec. VI, 400.

available phosphoric acid in, Rec. V, 288.

cost and valuation, Bul. 2, I, 40.

hog, analyses, Rec. III, 592.

Tannery—

ashes, analyses, Rec. III, 463; XII, 531.

refuse, analyses, Rec. I, 149.

salt refuse, analyses, Rec. VIII, 41.

scutch, analyses, Rec. VIII, 768.

Tannic acid—

constitution, Rec. IX, 225.

determination, Rec. V, 251; XII, 516, 610.

determination in coffee, Rec. X, 80.

extraction, Rec. VII, 366.

for clarification of sugar solutions, Rec. VII, 364.

germicidal properties, Rec. VI, 148.

in metabolism of plants, Rec. V, 934, 939, 1044; VI, 195.

sumac, Rec. VII, 775.

optical properties, Rec. VII, 557.

Tannic and resinous substances in *Gardemia* and *Spermolepsis*, genetic affinity, Rec. III, 925.

- Tannin—
 and gallic acid, color reaction, *Rec. IX*, 25.
 the animal hide, *Rec. V*, 927.
 chemistry, *Rec. VII*, 557.
 compounds, analyses, *Rec. VI*, 775.
 culture of canaigre for, *Rec. III*, 846.
 determination, *Rec. III*, 925; *V*, 433; *VI*, 111;
VII, 268, 366; *VIII*, 278, 376; *X*, 20, 116, 315, 607.
 determination—
 by Gantter method, *Rec. IV*, 314.
 in wines, *Rec. VI*, 613, 775; *VII*, 363, 558.
 distribution—
 in pears, *Rec. XII*, 558.
 wood, *Rec. VII*, 962.
 dyes, use in plant anatomy, *Rec. VII*, 750.
 effect on bacteria, *Rec. IX*, 229.
 extracts—
 commercial value, *Rec. X*, 96.
 preparation, *Rec. X*, 96.
 for staining microscopic specimens, *Rec. VI*,
 487.
 from *Pterocarpus draco*, *Rec. VII*, 530.
 germicidal effect, *Rec. IX*, 627.
 in acorns, *Rec. VIII*, 290.
 African plants, *Rec. IV*, 108.
 black wattle, *Rec. III*, 595.
 canaigre roots, *Rec. III*, 591, 846; *IV*, 805;
VIII, 772.
 cedar apples, *Rec. VII*, 17.
 cider, oxidation, *Rec. VI*, 775.
 coffee, *Rec. VII*, 616.
 Ericaceæ, *Rec. VII*, 993.
 palmettos, *Rec. VII*, 993.
 sumac plant-louse gall, *Rec. IV*, 668.
 wheat and oat straw, *Rec. V*, 145.
 optical properties, *Rec. X*, 116.
 origin in galls, *Rec. XII*, 615.
 plant, gambier as a, *Rec. V*, 130.
 pure, preparation, *Rec. V*, 433.
 rôle in fruits and plants, *Rec. IX*, 25, 329.
 value of North American trees, *Rec. VII*, 808.
- Tanning—
 and tanning materials, *Rec. VI*, 251.
 tanning materials, progress in, *Rec. VII*,
 163.
 as related to bacteriology, *Rec. VI*, 1027.
 industry, progress in, *Rec. IX*, 197.
 materials—
 ash analyses, *Rec. X*, 219.
 color, *Rec. VI*, 868; *VII*, 257.
 determination, *Rec. IX*, 521.
 extraction, *Rec. VII*, 366.
 extraction as affected by temperature,
Rec. X, 116, 413.
 Indian, *Rec. VI*, 251.
 sampling and analysis, *Rec. X*, 116, 413.
 wattle barks for, *Rec. XII*, 995.
- Tannins—
 condensation, *Rec. VII*, 921.
 of fungi, *Rec. VII*, 468, 749.
 treatise on, *Rec. VI*, 170.
 yellow coloring principles, *Rec. IX*, 521.
- Tannoform as an antiseptic, *Rec. XII*, 194.
- Tannoids, bibliography, *Rec. V*, 134.
- Tansy—
 false, notes, *Rec. VIII*, 703.
 notes, *Rec. IV*, 167, 654.
- Tanyard refuse, analyses, *Rec. XII*, 39.
- Tanymericus—
confertus, notes, *Rec. VI*, 312.
indicus affecting wheat, *Rec. XI*, 1062.
- Tanyrhinus singularis, notes, *Rec. IX*, 966.
- Tapestry moth, notes, *Rec. VIII*, 806; *X*, 655.
- Tapeworm—
 cysts of cattle, *Rec. IX*, 274.
 fringed, *Rec. XI*, 498.
 new—
 of birds, *Rec. IX*, 1031.
 cats, *Rec. IX*, 193.
 new species, *Rec. IX*, 1091.
- Tapeworms—
 adult of sheep, cattle, and allied animals,
 revision of, *Rec. V*, 693.
 method of adherence to intestinal wall, *Rec.*
XII, 394.
 notes, *Rec. II*, 79.
 of domestic animals, *Rec. V*, 608, 693.
 hares and rabbits, *Rec. IX*, 996.
 poultry, *Rec. VIII*, 1015.
 sheep, *Rec. V*, 608; *XI*, 1092.
 parasitic in horses, *Rec. XII*, 893.
 studies, *Rec. IX*, 194.
- Taphrina—
acerina, n. sp., notes, *Rec. VII*, 875.
aurea, notes, *Rec. VIII*, 898.
bullata, notes, *Rec. VIII*, 898.
deformans, notes, *Rec. II*, 246; *III*, 810; *IV*,
 837; *VI*, 559, 560; *VII*, 39.
pruni, notes, *Rec. III*, 871.
pseudo-cerasus, notes, *Rec. VII*, 311.
 sp., parasitic on Populus, *Rec. VI*, 488.
- Tapinopterus—
kaufmani, n. sp., notes, *Rec. VIII*, 808.
(Percosteropus) byzantium, n. sp., notes, *Rec.*
VIII, 808.
- Tapioca—
 analyses, *Rec. IX*, 1078.
 manufacture, *Rec. XII*, 1076.
 manufacture on the Island of Reunion, *Rec.*
V, 540.
- Tar—
 for wireworms, *Rec. III*, 447.
 pan for leaf hoppers, *Rec. IV*, 729.
- Tarantula, death due to, *Rec. III*, 812.
- Tarantulas, venom, *Rec. VI*, 740.
- Taraxacum officinale, notes, *Rec. III*, 308; *IV*, 45;
V, 398; *VIII*, 795; *IX*, 1055.
 (See also DANDELION.)
- Tare—
 as an orchard plant, *Rec. IV*, 822.
 seed, analyses, *Rec. III*, 157.
- Tares—
 germination experiment, *Rec. V*, 628.
- Scotch—
 analyses, *Rec. III*, 159.
 culture experiments, *Rec. III*, 159.
 fertilizer experiments, *Rec. VI*, 293.
- Tariff—
 in France, *Rec. III*, 903.
 rates on cereals, *Rec. VI*, 172.
- Tariffs—
 foreign, on agricultural products, *Rec. III*,
 326.
 under reciprocity treaties, *Rec. III*, 326.

Tarnished plant bug. (*See* PLANT BUG, TARNISHED.)

Taro—

- analyses, Rec. XII, 1076.
- culture experiments, Rec. VIII, 128; IX, 243.
- notes, Rec. III, 444.

Tarred paper bands for insects, Rec. XI, 175.

Tarsonemus—

- ananas*, n. sp., notes, Rec. XI, 257.
- culmicolus*, n. sp., notes, Rec. XII, 970.

Tartar emetic—

- analyses, Rec. III, 690.
- as an insecticide, Rec. II, 319.
- transmission to milk, Rec. IV, 616.

Tartarian honeysuckle, summer propagation, Rec. III, 230.

Tartaric acid—

- color reactions, Rec. XI, 510.
- determination, Rec. XII, 1007.
- from cane sugar, Rec. VII, 365.
- in citric acid, detection, Rec. IV, 613.
- wines, Rec. IX, 521.
- inverting power on sucrose, Rec. XI, 20.

Tartrate solutions, separation of iron and alumina from, Rec. V, 433.

Tarweed—

- notes, Rec. II, 650; III, 598; IV, 47; VI, 822.
- prickly, notes, Rec. III, 598.
- tall, analysis, Rec. XII, 282.

Tasmanian Coccinellidæ, notes, Rec. V, 514.

Tavli of field crops in India, Rec. V, 354.

Taxation, local, as affecting farms, Rec. IX, 296.

Taxodium distichum—

- germination experiment, Rec. V, 54.
- notes, Rec. II, 143; V, 54; X, 441.
- (*See also* CYPRESS, BALD.)

Taxus baccata—

- mucilage and resin cells in, Rec. V, 923.
- notes, Rec. V, 54, 1033.

T. B. milk producer, analyses, Rec. VII, 702.

Tea—

- aboriginal North American, history, Rec. III, 415.
- adulteration, Rec. IV, 77; X, 1089; XI, 971.
- analyses, Rec. IV, 77; IX, 868; XI, 314, 548, 769; XII, 337.
- and coffee—
 - decoctions, effect on artificial digestion, Rec. V, 259; 536.
 - methods of analysis, Rec. III, 925.
- as a food protector, Rec. XI, 970.
- bark louse, notes, Rec. VII, 593.
- blights, Rec. X, 971; XI, 469, 948.
- blights, treatment, Rec. XI, 172.
- bugs of India, Rec. VI, 152.
- bush, insects affecting, Rec. XI, 273.
- Chinese, analyses, Rec. IV, 694.
- consumption, Rec. IV, 77.
- cultivation, Rec. V, 325.
- culture—
 - experiments, Rec. IX, 450.
 - in Caucasus, Rec. IX, 561.
 - Japan, statistics, Rec. VI, 425.
 - North Carolina, Rec. III, 709.
 - South Carolina, Rec. XI, 741; XII, 1045.
 - southern India, Rec. XI, 452.

Tea—Continued.

- culture—continued.
 - manual, Rec. XI, 1048.
 - on Black Sea coast of the Transcaucasus, Rec. X, 253.
- determination of caffein in, Rec. VII, 557, 652.
- districts of subtropical regions of Asia, Rec. X, 398.
- effect—
 - of volatile extract on man, Rec. X, 281.
 - on digestion, Rec. VII, 971.
- examination, Rec. VII, 599.
- extracted, detection, Rec. IV, 986.
- factory, description, Rec. XI, 742.
- fertilizer experiments, Rec. XI, 1048.
- insects—
 - affecting, Rec. XI, 1062; XII, 1067.
 - remedies, Rec. VII, 518.
- investigations, literature, Rec. IV, 77.
- methods of analysis, Rec. IV, 77; V, 127.
- New Jersey, notes, Rec. III, 521.
- North American, analyses, Rec. III, 415.
- pests, studies, Rec. XI, 366, 563.
- plant—
 - diseases, Rec. X, 169.
 - insects affecting, Rec. VII, 593; X, 169.
 - preparation, Rec. IV, 77.
 - production and consumption, Rec. VII, 32.
 - roses, grafting, Rec. V, 855.
 - theine content, Rec. XII, 1005.

Teacher, differentiation from investigator, Rec. XII, 403.

Teachers and investigators—

- in colleges and stations, Rec. V, 274.
- relation between, Rec. III, 140.

Teak forests of Burmah, Rec. VIII, 136.

Teas, relation between properties and caffein content, Rec. X, 80.

Teasel— (*See also* DIPSACUS.)

- Fuller's, notes, Rec. III, 598.
- notes, Rec. II, 745; V, 398; VII, 689.
- root system, Rec. IV, 46.

Technical—

- education, Rec. VI, 486.
- education in dairying, Rec. VI, 174.
- instruction for farm women, Rec. X, 198.

Technique of coloration of cilia, Rec. V, 345.

Technology and allied sciences, dictionary, Rec. VIII, 623.

Teeth—

- and bones, ash constituents, Rec. V, 654.
- fluorin in, Rec. IV, 387; V, 438, 822.
- micro-organisms causing injury, *Bul.* 2, II, 94.
- of the horse, notes, Rec. VI, 666, 934.

Teff grass—

- culture experiments, Rec. IV, 411.
- notes, Rec. VI, 97.

Teia anartoides, notes, Rec. VIII, 712, 1002.

Teichomyza, bibliography, Rec. XII, 867.

Telea polyphemus, notes, Rec. I, 12, 21, 232; II, 115, 482; V, 206, 1104.

Telegraph—

- service in West Indies, Rec. X, 419.
- stations, Rec. XII, 119.

- Telegraphy—
 weather—
 history, Rec. XI, 221.
 in Germany, Rec. XII, 122.
 wireless, Rec. XII, 118, 119, 831.
- Telenomus*—
bifidus, notes, Rec. II, 116.
graptæ, notes, Rec. II, 116.
 sp., notes, Rec. IX, 856; X, 165.
sphingis, notes, Rec. VIII, 998.
- Telephone and kite, Rec. X, 326, 419.
- Telephorus obscurus*, notes, Rec. X, 65.
- Teleutospores—
 of *Puccinia*, structure, Rec. VI, 115; VII, 925.
Uredo aspidiotus, Rec. VII, 277.
- Telferia, analyses, Rec. X, 678.
- Temelucha macer*, notes, Rec. XII, 363.
- Temperature—
 and clothing, Rec. IX, 424.
 color relation, Rec. XII, 118.
 and food, effect on—
 milk, Rec. V, 598.
 respiratory quotient of molds, Rec. VIII, 671.
 and humidity as observed in balloon voyages, Rec. VI, 620.
 rainfall, Rec. VI, 87; VIII, 110.
 and rainfall—
 at Mersivan, Turkey, Rec. IX, 424.
 charts, Rec. VI, 879.
 in Europe, Rec. VII, 259.
 apparatus for regulating, Rec. VI, 873.
 as affected by—
 forest clearing and cultivation, Rec. XI, 127.
 forests, Rec. XII, 522.
 as related to altitude, Rec. XI, 820.
 at Baltimore, Md., Rec. XI, 620.
 Cape Nome, Rec. XII, 521.
 New York, Rec. XII, 119.
 changes, effect on movements of ground-water, Rec. XI, 517.
 control in wine fermentation, Rec. IX, 894.
 correction tables for picnometer measurements, Rec. X, 920.
 corrections of barometers, Rec. VII, 475.
 diurnal range, Rec. XII, 920.
 effect on—
 composition of hay, Rec. IX, 679.
 crop production in Texas, Rec. VI, 196.
 direction of plant sprouts, Rec. X, 223.
 evaporation from soils, Rec. VII, 374, 753.
 extraction of tanning materials, Rec. X, 116, 413.
 fruits and vegetables, Rec. VII, 587.
 germination of fungus spores, Rec. VII, 746.
 germination of seeds, Rec. IV, 875; VI, 422, 640, 641; VII, 407; IX, 954; XI, 54, 156, 856; XII, 563, 910.
 hibernation of injurious insects, Rec. X, 61.
 household insects, Rec. IX, 660; XI, 562; XII, 1068.
 milk fat, Rec. VIII, 432.
 milk production, Rec. V, 322; VI, 1023.
 moisture of the soil, Rec. VII, 99; VIII, 36.
- Temperature—Continued.
 effect on—continued.
 osmotic processes of the living cell, Rec. VIII, 670.
 plant growth, Rec. V, 114, 116; IX, 940; X, 608.
 respiration of plants, Rec. XI, 421, 515.
 rotation of saccharose, Rec. XII, 611.
 rotation of sucrose, Rec. XI, 311.
 seeds, Rec. XI, 54, 855.
 silkworm eggs, Rec. VI, 440.
 soil constituents, Rec. VIII, 964; IX, 734.
 wine making, Rec. VII, 257.
 yeast, Rec. IX, 626.
 extreme, of Finland, Rec. IX, 533.
 forecasts, Rec. XI, 127.
 in Alaska, Rec. XI, 621.
 Montana, changes, Rec. XII, 119, 521.
 Nicaragua, Rec. XI, 430.
 region of Paris, variation in, Rec. III, 926.
 sunshine, Rec. XI, 620.
 intermittent—
 effect on germination, Rec. XI, 856.
 for germination of grass seeds, Rec. VI, 641.
 internal of trees, Rec. VIII, 134, 135, 695; X, 641.
 limits of mold fungi, Rec. VIII, 290.
 low for August, cause, Rec. VII, 845.
 mean daily, corrections for, Rec. XII, 1018.
 measurement, Rec. VII, 736.
 measurement at distant points, Rec. VII, 273, 661.
 minimum, on mountain peaks, Rec. XI, 621.
 new method of measuring, Rec. XI, 511.
 observations—
 by kites, Rec. X, 325.
 on Mount Washington, Rec. III, 549.
 the snow, Rec. VII, 845.
 of cattle, variations, Rec. X, 692.
 chlorophyll production in plants, Rec. VII, 465.
 churning, Rec. IV, 271; V, 323, 1056.
 insects, Rec. XI, 556.
 of interior of—
 bread coming from oven, Rec. V, 733.
 sugar beets, Rec. V, 265.
 of lake water, Rec. X, 325.
 liquefied air, effect on bacteria, Rec. XII, 913.
 North Atlantic currents, Rec. V, 1087.
 northern Southwest Africa, Rec. IX, 731.
 oven for baking bread, Rec. V, 733.
 plants, Rec. V, 1028; X, 921; XI, 315.
 soil. (See SOIL TEMPERATURE.)
 of stable, effect on—
 milk and butter-fat production, Rec. VIII, 432.
 productivity of farm animals, Rec. X, 184.
 of stables, Rec. VII, 616; IX, 998.
 the ground and carbonic acid of the air, Rec. VII, 929.
 trees, Rec. VII, 773; XII, 453.
 upper regions of the air, Rec. V, 819, 924, 1029; VI, 972; VII, 931.
 wine fermentation, Rec. IX, 696, 894, 1095.
 regulator. (See THERMOSTAT.)
 relation to cotton plant, Rec. I, 312.

Temperature—Continued.

- reports, telegraphing to section centers, Rec. XI, 127.
- seasonal variations at different altitudes, Rec. XII, 725.
- sensible, Rec. X, 419; XI, 221.
- sensible, and the warm wave of March 27-29, 1895, Rec. VII, 474.
- summer and winter, Rec. XII, 1016.
- surface of the soil, Rec. IX, 232, 433.
- underground, at Oxford, Rec. XII, 731.
- variation, Rec. VI, 789.
- variations—
 - in free atmosphere, Rec. XI, 517.
 - relation to vegetation, Rec. XII, 120.
 - vertical gradients, Rec. XI, 222, 621.
- Temperatures for physiological experiments, Rec. X, 613.
- Tendons, constituents, Rec. XI, 1100.
- Tendrils—
 - curving and twining, Rec. VII, 925; VIII, 205.
 - in fungi, Rec. VI, 195.
 - physiology, Rec. VII, 564; IX, 812.
- Tenebrio—
 - molitor*, notes, Bul. 2, II, 58; Rec. VIII, 241; IX, 65; XII, 367, 974.
 - obscurus*, notes, Rec. IX, 65, 670.
- Tenebroides mauritanicus*—
 - in wheat, Rec. X, 769.
 - living in an insecticide, Rec. I, 41.
 - notes, Rec. VII, 515; VIII, 241; IX, 65; XI, 952; XII, 265, 1060.
- Tennessee—
 - fescue, notes, Rec. III, 41.
 - fruit growing, Rec. II, 426.
 - phosphate—
 - notes, Rec. VII, 101, 106.
 - rock, analyses, Rec. XI, 39.
 - river and flood system, Rec. VIII, 676.
 - yam, analyses, Rec. VIII, 520.
- Tension of water and air in the soil, Rec. VIII, 679.
- Tent caterpillar—
 - American, notes, Rec. XI, 169.
 - California, notes, Rec. IV, 838.
- Tent caterpillars— (See also APPLE-TREE TENT CATERPILLAR and FOREST TENT CATERPILLAR.)
 - destruction by birds, Rec. XI, 953; XII, 366.
 - in Massachusetts, Rec. IV, 852.
 - insecticides for, Rec. VI, 64.
 - notes, Rec. II, 81, 651, 654; III, 198, 889; IV, 840; V, 101; VI, 65, 313, 567, 836; VII, 126; VIII, 68, 145, 321, 613, 999, 1003; X, 369, 866, 1060; XI, 370, 657, 863, 957, 1064; XII, 265, 378, 468, 869.
 - on hops, Rec. IV, 373.
 - Pimpla conquisitor* parasitic on, Rec. X, 1061.
 - remedies, Rec. III, 864, 870, 889; VII, 146; X, 1042; XI, 558.
- Tenthredinidæ—
 - larvæ, Rec. VIII, 911.
 - species, studies, Rec. IX, 1070.
- Tenthredo rufopictus*, notes, Rec. X, 1065.
- "Teopik" fiber analyses, Rec. X, 428.

Teosinte—

- analyses, Rec. I, 233; II, 580, 742, 743; III, 16, 159; V, 217; XI, 277.
- crossing with maize, Rec. VIII, 563.
- culture experiments, Bul. 2, I, 190; Bul. 2, II, 124; Rec. I, 89; II, 70, 270, 643, 742; III, 17, 148, 696, 860; IV, 248, 411, 645; V, 39; VI, 215, 542, 807; VII, 121, 953; VIII, 401; X, 244.
- for forage, Rec. II, 743; III, 148; XII, 331.
- loss by exposure, Rec. IX, 346.
- notes, Bul. 2, I, 189; Bul. 2, II, 23; Rec. II, 336; VII, 296; XII, 329, 1031.
- smut, studies, Rec. XII, 356.
- time of harvesting, Rec. II, 744.
- varieties, Rec. I, 143; II, 149.
- yield, Rec. IV, 825.

Tephritidæ—

- onopordinus*, notes, Rec. VI, 560; IX, 74, 160.
- psidii*, n. sp., notes, Rec. XI, 273.
- tryoni*, n. sp., Rec. IX, 462; X, 470, 769; XI, 273, 558, 563, 870, 1065.

Tephrosia sp., notes, Rec. VI, 335, 617.*Terantheria laurifolia*, analyses, Rec. X, 678.

Teras—

- cinderella*, notes, Rec. V, 990.
- contaminana* on apricots, Rec. VII, 517.
- hecabe*, notes, Rec. VIII, 807.
- malivorana*, notes, Rec. V, 990.
- minuta*, notes, Rec. V, 990; VI, 313, 1007; XII, 68.
- minuta cinderella*, notes, Rec. X, 766.
- oxycozana*, notes, Rec. I, 134.
- vacciniivorana*, notes, Rec. II, 418; IV, 838; V, 800.

Terebinthin—

- as an insecticide, Rec. X, 67.
- preparation and use, Rec. IX, 464.

Teredo, or ship worm, notes, Rec. VII, 842.

Terfezia—

- claveryi*, notes, Rec. VII, 308.
- leonis*, notes, Rec. VII, 308.

Termes—

- acanthothorax*, n. sp., Rec. XI, 66.
- flavipes*. (See TERMITES.)
- mülleri*, n. sp., Rec. XI, 66.
- niger*, n. sp., Rec. XI, 66.
- taprobanes*, notes, Rec. XII, 1067.

Terminalia catappa, notes, Rec. VIII, 231.

Termites—

- as a forcing-house pest, Rec. VIII, 557.
- constitution and development, Rec. VIII, 507; X, 69.
- importance in tropical soils, Rec. VIII, 417.
- in captivity in England, Rec. VIII, 712.
- injuries by, Bul. 2, I, 178.
- new, from Africa, Rec. XI, 66.
- notes, Bul. 2, I, 178; Rec. III, 876; V, 514; VIII, 505, 999; IX, 64.
- parasites, Rec. IX, 1072.

Termitidæ of southwestern Texas, Rec. VIII, 417.

Terraces or ditches, construction, Rec. VIII, 91.

Terrapin bug, remedies, Rec. IV, 58.

Terrel grass, notes, Rec. II, 658; IV, 248.

Terrestrial—

- magnetism, Rec. VII, 722.
- radiation, Rec. III, 396; IV, 129, 335, 710; V, 33.

Test—

papers, preparation and use, Rec. XI, 619.

tube—

for zone reactions, Rec. V, 251.

holder, description, Rec. XII, 391.

Testacella haliotide, notes, Rec. XII, 1062.

Tetanolysin, notes, Rec. XI, 694.

Tetanus—

antitoxin, Rec. VIII, 928; X, 193; XII, 393.

bacilli, effect on leucocytes, Rec. XII, 1084.

cultures as affected by sunlight, Rec. VI, 969.

differential diagnosis, Rec. XI, 985.

effect of strychnin on, Rec. XI, 192.

etiology, Rec. XI, 694.

immunity of chickens, Rec. X, 497.

in horses, treatment, Rec. VIII, 523.

notes, Rec. IV, 75; XI, 189.

poison, modification, Rec. XI, 288.

preventive of, Rec. V, 928; VII, 156.

studies, Rec. XI, 91, 192.

toxin, Rec. IX, 694.

toxin—

and antitoxin, combination in guinea pigs, Rec. XI, 288.

effect on central nervous system, Rec. XII, 596.

treatment, Rec. IV, 694, 867; XI, 190, 192, 288, 892; XII, 1092.

treatment by fright, Rec. XII, 890.

virus, excretion by kidneys, Rec. XI, 995.

Tetracha virginica, notes, Rec. IV, 58.

Tetragonia expansa, notes, Rec. VI, 722; X, 254; XII, 345.

Tetrasporium caespitum, notes, Rec. IX, 65; X, 654.

Tetraneura ulmi, notes, Rec. XI, 657; XII, 664.

Tetranychus—

bioculatus, notes, Rec. XI, 172.

4-maculatus, notes, Rec. IV, 354.

12-maculatus, notes, Rec. V, 63.

sp., notes, Rec. IX, 262, 767; X, 65, 165.

telarius. (See RED SPIDER.)

Tetranychus—

bibliography, Rec. XII, 867.

notes, Rec. XII, 469.

Tetraopes femoratus, method of egg deposition, Rec. X, 65.

Tetraploa divirgens, n. sp., Rec. VI, 1000.

Tettigidea lateralis, notes, Rec. VI, 151.

Tettigonia—

hieroglyphica, notes, Rec. II, 80; V, 62.

mollipes, notes, Rec. III, 860.

vitis, notes, Rec. II, 419.

Tettigonia, remedies, Rec. VIII, 708.

Tettix subulata, destroying forests, Rec. VI, 731.

Teucrium canadense, notes, Rec. VI, 903.

"Texana manure," notes, Rec. VII, 25.

Texas—

coal, fuel value, Rec. VI, 942.

crowfoot, notes, Rec. X, 343.

drop seed grass, notes, Rec. VIII, 306.

weeping mulberry, notes, Rec. VIII, 314.

Texas blue grass—

adaptation, Rec. III, 595.

analyses, Rec. III, 318; IV, 646.

as a forage plant, Rec. III, 29.

culture experiments, Rec. I, 69, 197; III, 604, 860; IV, 248; VIII, 687; X, 245.

Texas blue grass—Continued.

notes, Rec. II, 69, 271, 601, 658, 740; III, 29, 41;

V, 161, 577, 578; VI, 95, 215, 542, 721; VII, 116;

VIII, 687; X, 245; XII, 936.

Texas fever— (See also CATTLE TICK.)

and cattle ticks, Rec. IV, 756; V, 995, 1042; VI, 471; X, 389; XI, 188.

biology, Rec. XI, 796.

control, Rec. X, 595; XI, 593.

cooperative experiments, Rec. XII, 194.

development, Rec. XII, 886.

immunity—

duration, Rec. XI, 1086.

inheritance, Rec. XI, 1086.

immunization experiments, Rec. XI, 1086; XII, 186.

in Argentina, Rec. XII, 885.

Australia, Rec. IX, 893.

Kansas, Rec. IX, 893.

the southern English colonies, Rec. XI, 796.

inoculation for, Rec. II, 161; X, 389, 390; XI, 391, 593, 796, 991; XII, 890, 1093.

investigations, Rec. II, 514; III, 283, 729; IV, 750, 755; XI, 988.

nature, Bul. 2, I, 111; Rec. XII, 992.

notes, Bul. 2, I, 26; Rec. II, 318; V, 608; VI, 81; VII, 251; VIII, 525, 625, 928, 1016; IX, 392;

X, 296; XI, 189, 393, 901, 985, 995, 1091; XII, 194, 488, 597, 685, 790.

organism, differential diagnosis, Rec. XI, 985.

prevention, Rec. III, 501; VI, 472; IX, 188; XI, 289, 695; XII, 599, 798, 992.

regulations in Uruguay, Rec. XI, 997.

studies, Bul. 2, I, 186; Rec. V, 414, 513; XI, 92, 192, 995.

transmission by—

insects, Rec. XI, 995.

ticks, Rec. IX, 188.

treatment, Rec. IX, 293, 391; X, 95; XI, 494; XII, 691, 891.

Texas itch—

remedies, Rec. X, 190.

studies, Rec. XII, 92.

Texas millet—

analyses, Bul. 2, I, 181.

digestibility, Bul. 2, I, 181.

notes, Rec. I, 183; II, 601; VI, 715.

Textile—

fibers, classification, Rec. IX, 197.

plants, culture, Rec. XII, 442.

Textiles—

use in the arts, Rec. IX, 594.

vegetable, Rec. VIII, 401.

Thallophyta of West Virginia, Rec. IV, 642.

Thallophytes—

reserve carbohydrates, Rec. XII, 1014.

terminology, Rec. VIII, 472.

Thalpochara coccophaga—

larval habits, Rec. IV, 373.

notes, Rec. VI, 741.

Thamnidium elegans, spore formation, Rec. VII, 188.

Thamnocalamus spathiflorus, notes, Rec. III, 597.

Thamnomoma—

flavicularia, notes, Rec. IV, 58.

4-linearia, notes, Rec. IV, 58.

Thamnotettix—*aureola*, n. sp., notes, Rec. VI, 564.*perpunctata*, n. sp., notes, Rec. VI, 564.*Thamnocerus sanguineus*, notes, Rec. X, 168.

Thaw, Black River, Rec. XII, 119.

Thebus irrigation commission, report, Rec. XI, 395.

Thecla pæas, notes, Rec. IX, 370.

Thein, effect on excretion of alkali in urine, Rec. XI, 778.

Telephora pedicellata, notes, Rec. II, 455.*Theobroma cacao*, notes, Rec. VI, 909.

Theobromin—

determination, Rec. XII, 1007.

determination in the cocoa bean, Rec. IV, 613.

Therapy and pathology of domestic animals, text-book, Rec. XII, 889.

Theridium subterraneum, notes, Rec. X, 273.

Thermodynamics and work of the living organism, Rec. IX, 1080.

Thermometer—

air—

construction, Rec. VIII, 753.

new form, Rec. X, 125.

and barometer, early history, Rec. IX, 30.

cooking, Rec. VII, 793.

evolution, Rec. XII, 908, 1016.

holder, Rec. XI, 288.

mercury—

for high temperatures, Rec. V, 251.

invention, Rec. VI, 976.

with long scale, Rec. VII, 273.

registering, for casks and vats, Rec. VIII, 106.

Thermometers—

alcohol, verification, Rec. XII, 920.

exposure, Rec. IV, 671; IX, 531.

for dairies, Rec. XI, 689.

maximum and minimum, instructions for use, Rec. III, 894.

relative merits, Rec. VIII, 755.

sluggishness, Rec. XI, 819.

testing, Rec. XII, 22.

wet and dry bulb, Rec. XII, 920.

Thermophone for measuring temperatures of inaccessible places, Rec. VII, 273.

Thermopsis—*arenosa*, notes, Rec. X, 22.*divaricata*, notes, Rec. X, 22.

Thermoscope, chemical, Rec. X, 1018.

Thermostat—

automatic, Rec. XII, 908.

d'Arsonval's, Rec. VII, 928.

description, Rec. VI, 776; XII, 391, 516.

electric heater, Rec. XI, 420.

for gas pressure, Rec. X, 608.

physiological and bacterial work, Rec. VII, 273.

temperatures between 50 and 300°, Rec. V, 127.

new, Rec. X, 322.

simple, Rec. XII, 908.

Theronia—*fulvescens*, notes, Rec. XII, 860.*melanocephala* as parasite of the gypsy moth, Rec. III, 870.

Theses, abstracts, Rec. XI, 222.

Thielavia basicola as a cause of root rot of tobacco, Rec. IX, 959.*Thielaviopsis ethacetica*, notes, Rec. VIII, 237; X, 57.

Thimble cone pines, notes, Rec. VI, 427.

Thismia aseroz, mycorrhiza of, Rec. VII, 188.

Thistle—

analyses, Rec. III, 629.

blue, notes, Rec. III, 893; IX, 846.

bull, notes, Rec. VI, 822; VIII, 794.

Canada—

analyses, Rec. III, 629.

extermination of, Rec. II, 405, 745; XI, 462, 749.

fungus on, Rec. VI, 823.

in New Zealand, Rec. XI, 858.

law regarding, Rec. I, 323; IV, 47.

notes, Rec. II, 655, 745; III, 45, 217, 308, 893; IV, 47, 472, 591; V, 62, 263, 529; VI, 145, 822; VIII, 703, 794; IX, 653; X, 760; XII, 458.

Puccinia suabeolens on, Rec. V, 62.

root propagation, Rec. I, 282.

root system, Rec. IV, 45.

common, notes, Rec. IV, 47.

lance-leaved, notes, Rec. VI, 551.

native, notes, Rec. XII, 420.

notes, Rec. III, 52, 308.

pasture, notes, Rec. V, 398.

prairie, notes, Rec. VIII, 703.

Russian—

analyses, Rec. VI, 552, 553, 554; VII, 407.

as a forage plant, Rec. VI, 553.

botany, Rec. VI, 551.

culture experiments, Rec. VI, 551.

disappearance, Rec. XI, 858; XII, 350, 420.

eradication, Rec. VIII, 703; IX, 142; XI, 749.

in Nebraska, Rec. V, 787.

North America, Rec. VII, 511.

the West, Rec. VI, 431, 553, 641.

notes, Rec. IV, 699; V, 590; VI, 144, 145, 301, 415, 732, 822, 902; VII, 37, 136, 217, 407, 558, 689; VIII, 57, 704, 794, 866, 892; IX, 142, 453; X, 646, 760; XI, 315, 1055.

remedies, Rec. VI, 551.

sow—

eradication, Rec. IX, 454; XI, 749.

law regarding, Rec. I, 324.

notes, Rec. IV, 47, 591; V, 529; VI, 145, 822, VII, 588; VIII, 703.

root system, Rec. IV, 46.

spiny, notes, Rec. VII, 689.

star—

false, notes, Rec. VI, 145.

notes, Rec. X, 343.

Virginia, notes, Rec. II, 745.

Thistles, destruction by—

ammonium sulphate, Rec. XII, 351.

metallic salts, Rec. XII, 1052.

Thlaspi—*arvense*—

in rape-seed cake, Rec. VII, 248.

notes, Rec. IV, 167, 699; V, 529; VIII, 892; IX, 758.

perfoliatum as a salad plant, Rec. IV, 693.

Thomas slag. (See PHOSPHATIC SLAG.)

- Thomomys*—
clusius fuscus, n. sp., notes, Rec. III, 184.
talpoides, notes, Rec. VII, 20.
- Thorictidæ, monograph, Rec. XI, 562.
- "Thorley Food," analyses, Rec. VI, 110; VIII, 331.
- Thorn apple—
 notes, Rec. IV, 334, 654; VII, 38.
 purple, root system, Rec. IV, 46.
- Thorn-headed worm, hosts, Rec. III, 501.
- Thosea—
cervina, affecting tea, Rec. XI, 1062.
divergens, affecting tea, Rec. XI, 1062.
- Threadworm. (See STRONGYLUS.)
- Three-lined thrip, notes, Rec. V, 791.
- Three-square grass—
 analyses, Rec. II, 487.
 notes, Rec. II, 487.
- Thrips—
alii, notes, Rec. VI, 1005; VII, 144.
cerealum, remedies, Rec. XI, 959.
communis affecting peas, Rec. XI, 1066.
 n. sp., notes, Rec. II, 482.
physopus affecting peas, Rec. XI, 1066.
pistivora, notes, Rec. XII, 862.
sacchari, n. sp., notes, Rec. III, 278.
salicaris, notes, Rec. VIII, 910.
secalina, notes, Rec. XII, 467.
 sp., notes, Rec. XII, 862.
striatus, notes, Rec. V, 311; VI, 315.
tabaci, notes, Rec. X, 868, 1066; XI, 472, 952.
trifasciatus, n. sp., notes, Rec. VI, 563.
tritici, notes, Rec. IV, 839; X, 867.
- Thrips—
 in clover, notes, Bul. 2, II, 92.
 raisin vineyards, Rec. IX, 74.
 notes, Rec. V, 498; X, 168, 367; XII, 1067.
- Thrizion halidayanum*, notes, Rec. IX, 372.
- Throat botfly, horse, Rec. VIII, 418.
- Thrush, black, notes, Rec. XI, 426.
- Thuja—
menziesii, destruction by *Pestalozzia funerea*, Rec. V, 926.
occidentalis, notes, Rec. IV, 655.
- Thunder—
 air currents in, Rec. XI, 620.
 and air pressure, Rec. VII, 474.
 distant, Rec. X, 1018.
 prediction, Rec. XI, 429.
- Thunderstorm—
 of August 2, 1899, Rec. XI, 620.
 September 17, 1895, Rec. X, 1018.
 periods as affected by proximity to the sea, Rec. X, 1018.
- Thunderstorms—
 advance against the wind, Rec. VII, 474, 845; VIII, 111.
 and clouds in Jamaica, Rec. VIII, 207.
 at Antigua, Rec. XII, 831.
 Skyland, Rec. XII, 831.
 automatic records, Rec. XI, 620.
 forecasting, Rec. V, 91.
 foreign investigations, Rec. VI, 702, 878.
 frequency, Rec. IX, 424.
 in California, Rec. X, 124.
 Idaho, Rec. XII, 521.
 Lake County, Fla., Rec. IX, 424.
- Thunderstorms—Continued.
 in Mississippi, Rec. XII, 118.
 New Brunswick, Canada, Rec. X, 124.
 New York, Rec. IX, 531.
 near Washington, Rec. XII, 831.
 notes, Rec. IV, 429; XI, 819.
 predictions, Rec. VIII, 33.
 progressive movement, Rec. VIII, 675.
 studies, Rec. VII, 284.
- Thurberia arkansana*, notes, Rec. II, 259.
- Thuya—
gigantea—
 germination experiments, Rec. V, 61.
 notes, Rec. VI, 143; VII, 776.
japonica, notes, Rec. IX, 53.
occidentalis, notes, Rec. II, 143; V, 54; IX, 53.
occidentalis elwangeriana, notes, Rec. XI, 855.
plcata, notes, Rec. IX, 53.
sibirica, notes, Rec. II, 143.
- Thyatira scripta*, notes, Rec. IV, 839.
- Thyboe cheese, manufacture, Rec. X, 189.
- Thymo-cresol—
 as an insecticide, Rec. IV, 204.
 for scale insects, Rec. IV, 203.
- Thyreus abbotii*, notes, Rec. VIII, 146.
- Thyridopteryx—
boisduvali, notes, Rec. XI, 658.
ephemeraformis. (See BAGWORMS.)
herrichii, notes, Rec. XI, 658.
hubneri, notes, Rec. XI, 658.
 sp., notes, Rec. V, 992.
- Thyroid gland, effect of consumption on metabolism, Rec. IX, 982.
- Thysanoptera—
 monograph, Rec. VIII, 69.
 notes, Rec. XI, 370.
- Tibi, biological investigations, Rec. X, 1017.
- Tick fever. (See TEXAS FEVER and CATTLE TICKS.)
- Tick of domestic fowls, Rec. XI, 291.
- Tickle grass—
 analyses, Rec. VI, 403.
 notes, Rec. X, 343.
- Ticks—
 and "louping-ill," Rec. XI, 593.
 as related to Texas fever, Rec. V, 995, 1042; VI, 471.
 cattle. (See CATTLE TICKS.)
 effect on hosts, Rec. VI, 653.
 notes, Rec. IV, 354, 731, 749; IX, 254; XI, 760.
 sheep. (See SHEEP TICKS.)
- Tidal waves, protection against, by forests, Rec. X, 443.
- Tides and storms, Rec. XII, 1016.
- Tidonia piniaria*, notes, Rec. VIII, 711.
- Tiger beetle—
 notes, Rec. III, 175; V, 499.
 Virginia, notes, Rec. IV, 58.
- Tiger flower, notes, Rec. VIII, 986.
- Tiger swallowtail, notes, Rec. V, 631.
- "Tignuola," remedies, Rec. VI, 442.
- Tile, drainage. (See DRAINAGE.)
- Tilia— (See also LINDEN.)
americana. (See LINDEN, AMERICAN.)
cordata, notes, Rec. X, 358.
europæa. (See LINDEN, EUROPEAN.)

Tilia—Continued.

- kiusana*, n. sp., description, **Rec. XII**, 652.
maximowicziana, n. sp., description, **Rec. XII**, 652.

Tilia, Japanese species, **Rec. XII**, 652.

Tiliaceæ "A," notes, **Rec. VI**, 903.

Tillage—

- early v. late spring, effect on soil moisture, **Rec. XI**, 520.
 effect on—
 action of fertilizers, **Rec. IV**, 640.
 soil moisture, **Bul. 2, I**, 55, 149; **Rec. II**, 494; **IV**, 122; **IX**, 735; **X**, 424, 730, 739; **XI**, 40, 130, 520, 625; **XII**, 31, 123, 320, 627.
 soluble salts of soils, **Rec. XII**, 29.
 implements, tests, **Bul. 2, I**, 110.
 in relation to irrigation, **Rec. XII**, 398.

Tillandsia—

- grandis*, notes, **Rec. IX**, 358.
usneoides, notes, **Rec. II**, 491, 579; **XII**, 463.

Tilletia—

- caries*. (See **TRITICI**.)
corona, notes, **Rec. XI**, 463.
fatens. (See **LÆVIS**.)
horrida, notes, **Rec. XI**, 464.
lævis. (See **WHEAT SMUT, STINKING**.)
rugispora, notes, **Rec. IV**, 956.
tritici. (See **WHEAT SMUT, LOOSE**.)

Tilletia, studies, **Rec. XI**, 1099.

Tilsiter cheese, manufacture, **Rec. X**, 892, 1097.

Timber— (See also **FORESTRY** and **WOOD**.)

- as a crop, **Rec. IX**, 53.
 beetle, **Rec. X**, 871.
 beetle—
 Columbian, notes, **Rec. V**, 1078.
 notes, **Rec. V**, 311.
 Ceylon, mechanical tests, **Rec. XI**, 942.
 commercial, of New South Wales, **Rec. VII**, 776.
 coniferous, structure and weight, **Rec. IX**, 844.
 consumption in pulp manufacture, **Rec. XII**, 563.
 cutting—
 in Pennsylvania, **Rec. IX**, 843.
 rotation, **Rec. VII**, 962.
 durability, **Rec. X**, 442.
 estimation in forests, **Rec. XII**, 456.
 identification of different kinds, **Rec. XII**, 154.
 injury by acid fumes, **Rec. XII**, 756.
 insects affecting, **Rec. XI**, 783.
 investigations, **Rec. III**, 658.
 Japanese, saw pinching, **Rec. VII**, 871.
 lands, natural increase, **Rec. IX**, 141.
 mechanical tests, **Rec. V**, 96.
 method of determining when to cut, **Rec. X**, 358.
 physics, **Rec. VIII**, 702; **X**, 195.
 physics—
 international commission, **Rec. XII**, 653.
 laboratory tests, **Rec. III**, 729.
 proposed work, **Rec. III**, 908.
 work of the Division of Forestry, **Rec. XI**, 1050.
 pines of the South, **Rec. VIII**, 602; **IX**, 842.
 prevention of worm holes, **Rec. XII**, 456.
 resources as related to railways, **Rec. I**, 110.

Timber—Continued.

- standing—
 classification, **Rec. XII**, 757.
 estimation of quantity, **Rec. X**, 644.
 strength of different varieties, **Rec. XII**, 757.
 tests of Prussian-grown woods, **Rec. XI**, 458.
 time of cutting, **Rec. X**, 1067.
 trees. (See **TREES, TIMBER**.)
 trees, **Rec. IV**, 728.
 trestle bridges, **Rec. VII**, 869.
 turpentine, report on, **Rec. V**, 96.
 vulcanizing, **Rec. XI**, 1052.
 waste and how to avoid it, **Rec. VII**, 870.
- Time—
 decimal notation, **Rec. XI**, 1076.
 reckoning, **Rec. VIII**, 111.
 standard, **Rec. XI**, 620.
 standard, in Hawaii, **Rec. XII**, 521.
- Timothy—
 analyses, **Bul. 2, II**, 38, 39, 51, 129; **Rec. III**, 291, 357, 629; **IV**, 355, 475, 646, 733; **V**, 438, 500, 596; **VI**, 403, 444, 568, 569, 752; **VII**, 155, 296, 614; **VIII**, 81; **IX**, 268, 786; **XI**, 436, 882; **XII**, 471, 1077.
 and Jamaica hay, comparison of food value, **Rec. X**, 245.
 red clover, varieties, **Rec. VIII**, 268.
 as a forage plant, **Rec. III**, 28, 29.
 billbug, notes, **Rec. X**, 1059.
 breeding, notes, **Rec. XI**, 220.
 chemical composition as affected by fertilizers, **Bul. 2, I**, 155.
 culture experiments, **Rec. II**, 21, 395, 396; **IV**, 38, 140, 248; **V**, 38, 171, 577, 679, 870; **VI**, 290, 294, 296, 531, 543; **VII**, 120, 209, 496; **VIII**, 46.
 digestibility, **Bul. 2, II**, 43, 55; **Rec. X**, 1082.
 digestibility of protein in, **Bul. 2, II**, 61.
 fertilizer experiments, **Rec. III**, 299; **VII**, 679; **IX**, 235, 823; **X**, 950; **XII**, 127.
 for meadows and pastures, **Rec. II**, 271; **III**, 398; **XII**, 337.
 fungus diseases, **Rec. IX**, 957.
 growth, **Rec. III**, 291.
 hay—
 analyses, **Bul. 2, I**, 156; **Bul. 2, II**, 39, 129; **Rec. I**, 255; **II**, 50, 329, 504, 565, 644; **III**, 40, 284, 296, 301, 391, 401; **VI**, 444, 1008; **VIII**, 810; **X**, 474; **XI**, 873.
 ash constituents, **Rec. III**, 373.
 composition and fuel value, **Rec. XI**, 1076.
 digestibility, **Bul. 2, I**, 132; **Bul. 2, II**, 43, 54, 129; **Rec. IV**, 354, 569; **X**, 76, 180, 688; **XII**, 873.
 early v. late cut, **Rec. II**, 645; **III**, 391.
 fertilizing constituents, **Bul. 2, I**, 133.
 for cows, **Bul. 2, II**, 80; **Rec. III**, 166; **IV**, 259.
 mules, **Rec. III**, 167.
 steers, **Bul. 2, II**, 43; **Rec. I**, 210; **VI**, 240.
 v. prairie hay for cows, **Rec. VI**, 918; **VII**, 425; **XII**, 479.
 Hessian fly on, **Rec. X**, 769.
 improvement by selection, **Rec. IV**, 140.
 leaf miner, notes, **Rec. X**, 1059.
 leaf smut, studies, **Rec. XII**, 358.

Timothy—Continued.

- liming experiments, *Rec. XII*, 737.
- new enemy of, *Rec. IV*, 667.
- nitrate of soda for, *Rec. VII*, 679.
- notes, *Bul. 2, II*, 84; *Rec. I*, 317; *II*, 50, 69, 238, 271, 321, 329, 597, 601, 658; *VII*, 384; *IX*, 624; *XI*, 339.
- pollen-distributing insects on, *Rec. VIII*, 268.
- protein content as related to nitrogen applied, *Rec. V*, 579.
- root system, *Rec. XII*, 517.
- roots, analyses, *Bul. 2, I*, 57.
- rowen, analyses, *Rec. VIII*, 426.
- rust, *Rec. X*, 316.
- rust, notes, *Rec. VI*, 146.
- seed—
 - drilling *v.* broadcasting, *Rec. VI*, 533.
 - from different sources, comparison, *Rec. XII*, 457.
 - germination, *Rec. VIII*, 497.
 - germination tests, *Rec. V*, 910, 911, 913; *VI*, 429.
 - selection, *Rec. IV*, 140.
 - viability, *Rec. XI*, 158.
 - vitality of hulled and unhulled, *Rec. II*, 448.
- seeding, *Rec. XI*, 1032.
- seeding with wheat, *Rec. XII*, 640.
- study, *Rec. IX*, 552.
- wild, notes, *Rec. X*, 343.
- yield—
 - and food value per acre, *Rec. IV*, 568.
 - per acre, *Rec. III*, 391.

Tin—

- bands for fall cankerworm, *Rec. V*, 63.
- cans for canning, *Rec. V*, 220.
- in canned products, *Rec. XII*, 976, 980.
- physiological effects, *Rec. V*, 220.
- quantitative determination, *Rec. VIII*, 105.
- roofs as lightning conductors, *Rec. X*, 325, 326.

Tinea—

- biselliella*, notes, *Rec. VI*, 1007; *VIII*, 241; *IX*, 64; *X*, 655.
- granella*—
 - in America, *Rec. IX*, 854.
 - notes, *Rec. VI*, 567; *VII*, 515; *XI*, 767; *XII*, 69.
- pellionella*, notes, *Rec. I*, 224; *VI*, 1007; *VIII*, 241; *IX*, 64; *X*, 655.
- sp., notes, *Rec. XII*, 69.
- tapetzella*, notes, *Rec. I*, 224; *VI*, 1007; *VIII*, 806.

Tineid moth—

- description, *Rec. IV*, 372.
- notes, *Rec. X*, 571.

Tineidæ, effect of leucocytes in metamorphosis, *Rec. XI*, 870.*Tinobregmus vittatus*, n. sp., notes, *Rec. VI*, 564.Tipula affecting grasses, *Rec. XI*, 1066.

Tipula— (See also CRANE FLIES.)

- bicornis*, notes, *Rec. V*, 312.
- maculosa*, notes, *Rec. XII*, 1060.
- oleracea* notes, *Rec. VII*, 882; *IX*, 74; *X*, 65; *XII*, 973, 1060.
- pratensis* affecting cereals, *Rec. XI*, 1057.
- sp., notes, *Rec. VII*, 147.

Tipulidæ, oviposition, *Rec. V*, 312.Tipworm, notes, *Rec. IV*, 838; *V*, 800.

Tires—

- broad *v.* narrow for wagons, *Rec. XI*, 96, 1094; *XII*, 196.
- dynamometer tests, *Rec. VIII*, 553; *X*, 195.
- on farm wagons, *Rec. X*, 697.
- wide, for vehicles, *Rec. VI*, 1029.
- width, in Australia, *Rec. VII*, 531.

Tischeria malifoliella, notes, *Rec. XII*, 575.Tissue, mechanical, growth, *Rec. VI*, 487; *VII*, 372.

Tissues—

- assimilatory, of plants, *Rec. VIII*, 670.
- normal emulsified, toxicity, *Rec. XI*, 892.
- preparation for microscopic examination, *Rec. VI*, 18.
- tubercle bacilli in, detection, *Rec. XII*, 391.

Titanio sp., *Rec. V*, 900.*Tithonia fruticosa*, notes, *Rec. III*, 103.Titmice, notes, *Rec. IX*, 530.

Titmouse—

- blue, *Rec. IX*, 230.
- coal, *Rec. IX*, 230.
- crested, *Rec. IX*, 230.
- great, *Rec. IX*, 230; *XI*, 426.
- long-tailed, *Rec. IX*, 230.
- marsh, *Rec. IX*, 230.

Titration—

- apparatus, *Rec. IV*, 516; *IX*, 116; *XII*, 908.
- for determination of phosphoric acid, *Rec. X*, 117.
- method, new, for glucose, galactase, and other reducing bodies, *Rec. X*, 117.
- with limewater, *Rec. VII*, 273.

Tmetocera ocellana. (See BUD MOTH, EYE-SPOTTED.)

Toadflax—

- analyses, *Rec. III*, 629.
- eradication, *Rec. XI*, 749.
- grafted on snapdragon, *Rec. V*, 1089.
- law regarding, *Rec. I*, 323.
- notes, *Rec. II*, 655; *III*, 308; *VI*, 145.
- root system, *Rec. IV*, 46.

Toads—

- as enemies of the locust, *Bul. 2, II*, 93.
- economic value, *Rec. IX*, 330; *X*, 999.
- studies, *Rec. XI*, 429.

Toadstools, edible and poisonous, *Rec. VII*, 504; *XI*, 121; *XII*, 952.

Tobacco—

- American, for Italy, *Rec. VI*, 985.
- analyses, *Bul. 2, II*, 38; *Rec. II*, 12; *IV*, 819, 912, 985; *VI*, 210; *VIII*, 221, 377, 396, 885; *IX*, 1024; *XII*, 339, 744.

and kerosene emulsion for rose bugs, *Rec. XII*, 1065.soap for hop lice, *Rec. V*, 206.sulphur mixture, analyses, *Rec. III*, 292, 523; *IV*, 25.aroma as controlled by bacteria, *Rec. III*, 354.arsenites for, *Rec. VI*, 265, 1006; *VII*, 882; *VIII*, 319; *IX*, 1072.as a perennial, *Rec. X*, 148.affected by climatic conditions, *Rec. IX*, 1035.an insecticide, *Rec. II*, 292, 415; *III*, 298; *IV*, 932; *XI*, 66.

ashes—

- analyses, *Rec. VIII*, 377.
- for, *Rec. IV*, 614; *V*, 865.

Tobacco—Continued.

- assimilation, Rec. XI, 132; XII, 640.
- bacterial disease, Rec. V, 1019.
- baling, Rec. V, 47.
- barn—
 - curing, Rec. IX, 349.
 - for curing cigar leaf, Rec. X, 1097.
 - use of artificial heat, Rec. XI, 730.
- barns, construction, Rec. IV, 723; XI, 726.
- barnyard manure for, Rec. II, 457; IV, 821; V, 392; IX, 546.
- botany of, Rec. V, 47; VII, 76.
- broom rape, notes, Rec. II, 22; VI, 233; IX, 1024.
- bud worm—
 - notes, Rec. VII, 881; VIII, 998.
 - remedies, Rec. V, 1079; XI, 471.
- bug—
 - new, remedies, Rec. XI, 471.
 - spined, notes, Rec. VIII, 998.
- burning quality, Rec. II, 12; IV, 909; V, 863; VII, 208; VIII, 777.
- burning quality, apparatus for testing, Rec. IV, 910.
- burning quality as affected by—
 - chlorin, Rec. IV, 302.
 - composition of soil, Rec. IV, 303.
 - fertilizers, Rec. II, 457; IV, 303; VI, 633; VII, 118, 951.
 - improvement, Rec. III, 189.
 - potash, Rec. IV, 302.
- "calico" disease, Rec. XI, 755; XII, 542.
- California, nicotin content, Rec. XII, 943.
- casing, Rec. V, 47.
- castor pomace and cotton-seed meal for, Rec. V, 864.
- chemistry of, Rec. IV, 223, 378; V, 47, 256; VI, 111; VII, 76; VIII, 402.
- chlorin compound as affecting quality, Rec. III, 188.
- cigar-leaf—
 - culture in Florida, Rec. XI, 726.
 - curing and fermentation, Rec. XI, 727.
 - temperature changes in fermentation, Rec. XI, 729.
 - trade, requirements, Rec. XI, 726.
- climatic conditions favoring, Rec. V, 47; XI, 430.
- color as affected by fertilizers, Rec. II, 458.
- composition as affected by fertilizers, Rec. VI, 210.
- condition and acreage, Rec. III, 107, 183, 253, 326; IV, 223, 431.
- conditions necessary for delicacy of leaf and ribs, Rec. IV, 307.
- Connecticut—
 - bulk fermentation, Rec. XII, 335.
 - leaf, physiological studies, Rec. XII, 545.
- cooperative—
 - culture experiments, Rec. III, 662.
 - fertilizer experiments, Rec. IX, 345.
- cost of production, Bul. 2, I, 31; Rec. XI, 727.
- cotton-hull ashes and sulphate of potash for, Rec. IX, 346.
- cotton-hull ashes for, Rec. IV, 908, 909; V, 863, 865.
- cotton-seed meal and castor pomace for, Rec. VII, 208.

Tobacco—Continued.

- crop—
 - in Connecticut, Rec. VI, 216.
 - statistics, Rec. V, 328, 612; VI, 582.
- Cuban, in Florida, Rec. X, 43.
- culture, Bul. 2, I, 30; Rec. II, 550; IV, 32, 197, 648, 723, 912; VI, 41; VII, 76, 587, 763; VIII, 596; IX, 45; X, 43, 147, 547, 636, 955; XI, 443; XII, 236, 850.
- culture—
 - and bacteria, Rec. VIII, 224.
 - curing, Rec. III, 631, 709, 776, 861.
 - handling, Rec. XII, 637.
 - treatment, Rec. IV, 302.
 - experiments, Rec. III, 325; VIII, 313; X, 842; XI, 833, 839; XII, 939, 943.
 - in Alabama, Rec. III, 833, 845; IV, 697.
 - Borneo, Rec. VII, 498.
 - California, Rec. IX, 644.
 - Connecticut Valley, Rec. XII, 522.
 - Cuba, Rec. XII, 642.
 - Florida, Rec. III, 510; VIII, 596, 688.
 - Hesse, Rec. VI, 418.
 - India, Rec. VII, 863.
 - Kongo region, Rec. VII, 300.
 - Louisiana, Rec. III, 861.
 - Mexico, Rec. XI, 843.
 - New Guinea, Rec. XI, 146.
 - New South Wales, Rec. VII, 300.
 - Queensland, Rec. III, 753; XII, 1039.
 - Russia, Rec. XI, 341.
 - Spain, Rec. XI, 843.
 - Sumatra, Rec. VII, 498, 863; X, 545.
 - Texas, Rec. IV, 431.
 - Trinidad, Rec. XII, 339.
 - Tunis, Rec. XI, 444.
 - Virginia, Rec. VI, 809.
 - West Indies, Rec. XI, 644.
 - methods, Rec. V, 47, 392, 494.
- cured and uncured, analyses, Rec. IV, 911.
- curing, Rec. II, 550; III, 631, 709, 776, 861; IV, 308; V, 47, 495, 866, 879; VI, 41, 210; VII, 763, 948, 964; VIII, 220, 303, 685; IX, 242, 748; X, 43, 148, 242, 750; XI, 727, 730; XII, 544.
- curing—
 - and bulking, Rec. II, 12.
 - fermenting, Rec. XI, 727, 730, 927; XII, 544.
 - artificial, Rec. III, 776.
 - by "Snow modern barn" process, Rec. III, 709, 776; IV, 32.
 - house ventilation, Rec. VIII, 304.
 - loss of water in, Rec. XI, 730.
 - methods, Rec. IV, 32, 649, 723, 819.
 - on stalks, Rec. IV, 32.
 - wires, Rec. IV, 32.
- Cuscuta europæa* on, Rec. VIII, 240.
- cutworms—
 - notes, Rec. X, 661; XI, 472.
 - remedies, Rec. X, 660.
- decoction—
 - as an insecticide, Rec. II, 62, 718; V, 63, 64, 206.
 - for flea-beetles, Rec. IV, 416.
 - grapevine leaf beetle, Rec. VIII, 1003.
 - suck fly, Rec. X, 1068.
 - preparation and use, Rec. IV, 173; VII, 882; XI, 262.

Tobacco—Continued.

determination of—

nicotin, Rec. V, 433, 727; VII, 32; XI, 22; XII, 820.

nonvolatile organic acids, Rec. X, 1004.

disease, new, Rec. VIII, 237.

dust—

analyses, Rec. II, 581; IV, 903; VII, 669; VIII, 877; IX, 538; XI, 138; XII, 933.

effect on black peach aphid, Rec. XI, 472.

for apple woolly aphid, Rec. IX, 156, 261.

horn flies, Rec. V, 63.

preparation and use, Rec. V, 206.

effect on cows, Rec. V, 263.

experiments—

in Pennsylvania, Rec. IV, 991.

Texas, Rec. IV, 675.

summary, Rec. XI, 540.

extract—

analyses, Rec. III, 162; IV, 58; V, 206; VIII, 418.

by-product, analyses, Rec. XI, 314.

preparation, Rec. VII, 882.

refuse, analyses, Rec. IX, 1024.

fermentation, Rec. III, 354, 367; IV, 910, 985;

V, 454; X, 243, 1014; XI, 341, 727, 729, 730;

XII, 116, 335, 443, 544, 916.

fermentation—

bacteria in, Rec. III, 354, 367; XII, 720.

cause, Rec. XII, 722.

in bulk, Rec. XI, 730; XII, 335.

fermented—

and unfermented, Rec. IV, 910.

efflorescence, Rec. XI, 515.

fertilizer—

experiments, Bul. 2, II, 38; Rec. I, 75; II,

226; III, 188; IV, 31, 716, 723, 783, 821, 907,

908, 909; V, 47, 256, 392, 548, 863, 864, 865,

866; VI, 41, 42, 140, 210, 216, 296, 718, 985;

VII, 29, 201, 207, 208, 576, 762, 947; VIII,

220, 302, 395, 401, 976; IX, 345, 543, 547,

549, 1048; X, 242, 349, 431, 842, 955; XI,

924; XII, 339, 638, 842.

requirements, Rec. IV, 31.

fertilizers—

effect of, Bul. 2, II, 38.

effect on color, Rec. II, 458.

effect on composition, Rec. VI, 210.

effect on maturity, Rec. IV, 32.

effect on quality, Rec. II, 225, 457; III, 188;

IV, 330; VI, 633; VII, 118, 951; XI, 924.

for, Rec. V, 865; VIII, 596, 688; IX, 545, 546.

field experiments, Bul. 2, II, 38; Rec. II, 11,

12, 225, 550.

field experiments in Sweden, Rec. IV, 693.

flea-beetle—

notes, Rec. III, 860; V, 685; VIII, 136; X,

569; XI, 365.

remedies, Rec. XI, 471.

for animal parasites, Rec. V, 517.

aphid, Rec. X, 470.

cranberry insects, Rec. III, 871.

rose chafer, Rec. III, 171.

fumes for begonia disease, Rec. VII, 513.

fungus disease, Rec. V, 348; IX, 566.

Gelechia picipelis on, Rec. IX, 464.

"grain," notes, Rec. XII, 567.

Tobacco—Continued.

granulated—

analyses, Rec. IX, 935.

and sulphur, analyses, Rec. X, 426.

Greek—

composition, Rec. VI, 985.

culture, Rec. VI, 985.

growing under shade, Rec. XI, 727; XII, 542.

harvesting, Rec. IV, 649; VIII, 47.

harvesting at different dates, Rec. VIII, 685.

history—

and geographical distribution, Rec. IX, 242.

chemistry and culture, Rec. VIII, 47.

of introduction into France, Rec. VI, 722.

in New South Wales, nicotin content, Rec. XII, 820.

Indian, analyses, Rec. III, 629.

industry—

in Chile, Rec. XI, 538.

Germany, Rec. IX, 349.

Macedonia, Rec. IX, 135.

Pennsylvania, Rec. X, 246.

the United States, Rec. XII, 443.

infusion, preparation, Rec. VII, 882.

injury by grasshoppers, Rec. VIII, 320.

insects affecting, Bul. 2, I, 64; Rec. V, 47; X,

1068; XI, 471, 871; XII, 572, 774.

insects affecting—

in Florida, Rec. III, 813.

Porto Rico, Rec. XII, 162.

investigations, Rec. IV, 449; V, 255.

investigations in Russia, Rec. XI, 45.

irrigating, Rec. VIII, 303; XII, 842.

lands in Maryland, Rec. XII, 638.

leaf, analyses, Rec. VII, 669.

leaf structure and constituents, Rec. V, 649.

leaf miner—

notes, Rec. X, 469; XI, 472.

remedies, Rec. X, 1069.

leaf spot, Rec. XII, 359.

leaf spot, cause, Rec. X, 1058.

leaves, analyses, Rec. II, 730; IV, 26, 31; V, 164.

liquor, analyses, Rec. III, 162; IV, 58; V, 206;

VIII, 418.

magnesia and potash sulphate for, Rec. IV, 908, 909.

malic acid in, Rec. X, 1004.

manufacture, Rec. XII, 236.

manufacturing, analyses, Rec. VIII, 596.

manures, Rec. VIII, 688.

marketing, Rec. III, 845.

maturity hastened by fertilizers, Rec. IV, 32.

mildewing, Rec. IV, 315.

mold, prevention, Rec. IX, 242.

mosaic disease, Rec. VI, 234, 557; X, 1058; XI,

167, 358, 359, 756; XII, 216, 217, 572.

"mottled top," notes, Rec. XI, 755.

native, as a weed in New Zealand, Rec. XI, 858.

"natural spot," Rec. XII, 543.

nematode—

notes, Rec. XII, 462.

treatment, Rec. XI, 711.

nicotin—

content, Rec. IV, 820; VIII, 221, 397; X,

413; XII, 716, 820, 943.

Tobacco—Continued.

- nicotin—continued.
 - formation, Rec. III, 65.
 - localization, Rec. V, 649.
- nitrogenous compounds in, Rec. II, 458.
- notes, Rec. XII, 339.
- oxalic acid in, Rec. X, 1004.
- phosphates for, Rec. II, 225, 226.
- plant—
 - analyses at different stages, Rec. VIII, 396.
 - area of leaf surface, Rec. XII, 547.
 - investigations, Rec. IV, 449.
 - louse, new, Rec. X, 770.
 - notes, Rec. V, 649.
 - number of leaves, Rec. V, 331.
- planting at different distances, Rec. VIII, 303, 685.
- plants—
 - for seed, care, Rec. VI, 216.
 - injury by *Acarus telarius*, Rec. V, 821.
- pole burn—
 - investigation, Rec. III, 773.
 - notes, Rec. XII, 568.
- pole sweat, Rec. IV, 928.
- pole sweat, cause, Rec. V, 879.
- potash and magnesia carbonate for, Rec. V, 865.
- potash fertilizers for, Rec. IV, 716, 908, 909; V, 256, 865; IX, 547.
- powder for plant lice on lettuce, Rec. III, 97.
- preparation of seed bed, Rec. X, 246, 955.
- prizing, Rec. V, 47.
- production—
 - and distribution, Rec. IV, 846.
 - statistics, Rec. VIII, 491; IX, 1035.
- products, analyses, Rec. IV, 985.
- quality—
 - as affected by chlorin compounds, Rec. III, 188.
 - as affected by fertilizers, Rec. II, 225, 457; III, 188; IV, 330; VI, 633; VII, 118, 951; XI, 924.
 - relation to composition, Rec. III, 187.
- refuse, analyses, Rec. IX, 436; X, 428; XII, 225.
- ripening, Rec. IV, 308.
- root rot, Rec. IX, 569, 959.
- root system, Rec. XII, 639.
- roots, analyses, Rec. IV, 31.
- seed—
 - foreign and domestic, Rec. II, 12.
 - from first ripe fruits, Rec. II, 61.
 - germination tests, Rec. V, 826; XII, 1050.
 - home v. Virginia-grown, Rec. XII, 842.
 - light v. heavy, Rec. XI, 644.
 - selection, Rec. X, 967.
- seed bed, preparation, Rec. X, 246, 955.
- seedlings, injury by *Heterodera radicola*, Rec. VI, 646.
- seeds v. cuttings, Rec. II, 367.
- shading, Rec. XI, 727; XII, 542.
- smoke—
 - chemistry, Rec. VI, 111; XI, 619.
 - studies, Rec. III, 832.
- soil, previous culture, Rec. IV, 304.
- soil sickness, Rec. VIII, 240.

Tobacco—Continued.

- soils, Rec. X, 531.
- soils—
 - analyses, Rec. IX, 1035.
 - chemical and physical properties, Rec. VII, 955.
 - of Pennsylvania, analyses, Rec. VII, 934.
 - the United States, Rec. IX, 1035.
- spot disease, Rec. XI, 756.
- "spotting," Rec. XI, 755.
- sprayed, arsenic in, Rec. VI, 272, 315; XI, 314.
- sulphate v. muriate of potash for, Rec. IV, 821.
- stalk—
 - rot lessened by fertilizers, Rec. IV, 32.
 - worm, notes, Rec. XI, 953.
- stalks, analyses, Rec. IV, 31; IX, 1024; XII, 933.
- stem rot—
 - investigation, Rec. III, 775.
 - notes, Rec. V, 879.
- stems—
 - analyses, Bul. 2, I, 173; Rec. I, 15; II, 280, 481; III, 299, 523; IV, 25; VI, 274; VII, 835; VIII, 377, 768, 966; IX, 538, 636, 935; X, 230, 426, 428, 1033; XI, 719; XII, 931, 933.
 - and stable manure, analyses, Rec. XII, 933.
 - as a fertilizer for tobacco, Rec. IX, 546.
 - as an insecticide, Rec. V, 593.
 - for corn, Rec. I, 62.
 - ground, analyses, Rec. X, 428.
- stored, white spots on, Rec. VIII, 991.
- stripping, Rec. V, 47.
- stripping and planting, Rec. IX, 242.
- suckers, analyses, Rec. VIII, 768.
- sugar content, Rec. VIII, 122.
- Sumatra—
 - composition and texture, Rec. XII, 743.
 - growing in shade, Rec. XI, 727.
- taste as controlled by bacteria, Rec. III, 354.
- technology, Rec. XII, 850.
- thrips on carnations, remedies, Rec. XI, 1065.
- topping, Rec. X, 842.
- topping and suckering, Rec. VII, 32.
- transplanting, Rec. V, 47.
- Tumut, analyses, Rec. VI, 419.
- types of, analyses, Rec. VIII, 221.
- varieties, Bul. 2, I, 30; Rec. I, 75, 123; II, 11, 12, 396; III, 802; IV, 723; V, 47, 981; VI, 41, 42, 209, 216, 293; VII, 29, 118; VIII, 220, 888, 889; X, 148, 245, 349, 629; XI, 833, 839; XII, 537, 842.
- Virginia, in Brazil, Rec. XI, 644.
- waste, analyses, Rec. XI, 627.
- water—
 - and kerosene emulsion for green aphid, Rec. I, 294.
 - as an insecticide, Rec. VII, 215.
- work of agricultural experiment stations, Rec. XII, 235.
- worm— (See also PROTOPARCE.)
 - natural enemies, Rec. X, 1068.
 - notes, Bul. 2, I, 177; Rec. III, 175, 792; V, 685; VI, 235; IX, 242; XI, 62.
 - Paris green for, Rec. VIII, 997.
 - remedies, Rec. X, 1068; XI, 471.

Tobacco—Continued.

wrapper leaf—

curing and fermenting, *Rec. XII*, 544.in New England, *Rec. XI*, 927.yield, *Rec. III*, 414.

yield—

and quality as affected by shade and lime, *Rec. XII*, 542.value, *Rec. II*, 608.in 1892, *Rec. IV*, 500.on different soils, *Rec. V*, 981.Tocalote, notes, *Rec. III*, 598.Tofu, preparation and composition, *Rec. VII*, 701."Toile" disease, studies, *Rec. XI*, 360.Tokyo, Imperial College of Agriculture, *Rec. V*, 361.Tolokno, notes, *Rec. XII*, 377.*Totype velleda*, *Rec. IX*, 858.

Tomato—

acids in, *Rec. III*, 190.

anthracnose—

notes, *Rec. V*, 591, 788; *VI*, 735; *VIII*, 894.treatment, *Rec. X*, 445.

bacterial—

blight, *Rec. X*, 660.disease, *Rec. IV*, 353; *V*, 1019; *VIII*, 895; *IX*, 362; *XII*, 467.rot, treatment, *Rec. XII*, 569, 962.wilt, notes, *Rec. XII*, 569.wilt, prevention by fertilization, *Rec. XII*, 552.bacteriosis, notes, *Rec. XI*, 861.black rot, *Rec. III*, 860; *IX*, 56.

black rot—

notes, *Rec. V*, 790; *VI*, 234, 558.treatment, *Rec. X*, 1053.black spot, treatment, *Rec. X*, 1053.blight, *Rec. V*, 591; *VII*, 692; *VIII*, 499, 991; *IX*, 655; *X*, 362, 1054.

blight—

as affected by fertilizers, *Rec. X*, 1053.as affected by liming, *Rec. XII*, 867.cause, *Rec. IX*, 566.fungus, *Rec. X*, 660.investigation, *Rec. III*, 702.notes, *Rec. IV*, 51, 353, 907; *V*, 790; *VIII*, 991; *X*, 971; *XII*, 569, 570.plants affected by, *Rec. IX*, 250.prevention, *Rec. IX*, 325.treatment, *Rec. III*, 847; *IV*, 659; *V*, 790; *VI*, 829; *VIII*, 175; *IX*, 250, 446; *XI*, 752; *XII*, 256, 761.watermelon as host of, *Rec. V*, 790.buds, dropping of, *Rec. V*, 790.chutney, recipe, *Rec. XII*, 345.cuttings, *Rec. VII*, 686; *VIII*, 784.cuttings *v.* seedlings, *Rec. III*, 407; *IV*, 549, 653; *IX*, 947.decay, *Rec. V*, 401.diseases, *Rec. III*, 91; *V*, 790; *IX*, 1058; *XI*, 552; *XII*, 1056.

diseases—

fungicides for, *Rec. VI*, 995.treatment, *Rec. VII*, 222, 311.

downy mildew—

notes, *Rec. VI*, 559.prevention, *Rec. XI*, 259.

Tomato—Continued.

drooping disease, treatment, *Rec. VI*, 1000.edema, investigations, *Rec. V*, 55, 58, 309; *VI*, 647.etymology, *Rec. XI*, 250.fruit worm, notes, *Rec. V*, 594.hollow stem, *Rec. X*, 1054.hybrids, development, *Rec. XI*, 1099.jam, recipe, *Rec. XII*, 345.

leaf mold—

notes, *Rec. VIII*, 991.or mildew, notes, *Rec. XII*, 569.leaf spot, notes, *Rec. VIII*, 894; *X*, 456.louse, notes, *Rec. X*, 457.Macrosporium disease, notes, *Rec. XII*, 61.nematode, *Rec. V*, 1011; *VIII*, 608.nematode root gall, *Rec. IV*, 353.new insect enemy, *Rec. IV*, 852.phoma disease, notes, *Rec. XII*, 254.pimply rot, notes, *Rec. VII*, 695.plant, botany, *Rec. III*, 410.plants as affected by hot water, *Rec. V*, 593.point rot, notes, *Rec. VIII*, 991.pollinating blossoms, *Rec. V*, 785.preserves, Italian, recipe, *Rec. XII*, 345.root rot, notes, *Rec. X*, 1054.root tubercles, *Rec. VII*, 19.

rot—

notes, *Rec. III*, 10, 409; *IV*, 550; *V*, 591;*VIII*, 418; *IX*, 655; *X*, 456; *XII*, 61.treatment, *Rec. I*, 169; *IV*, 55.

rust—

notes, *Rec. X*, 971.treatment, *Rec. X*, 1053, 1054.sauce, recipe, *Rec. XII*, 345.

sclerotium—

disease, notes, *Rec. XII*, 61.wilt, *Rec. XII*, 569.

seed—

from early *v.* late fruits, *Rec. II*, 61, 586;*III*, 39, 402, 408, 610; *IV*, 155, 594; *VI*, 51.germination as affected by fungicides, *Rec. V*, 881.germination tests, *Rec. II*, 317; *V*, 55, 628.selection, *Rec. I*, 90; *VIII*, 785."sleepy disease," *Rec. VII*, 222.Southern blight, *Rec. IV*, 550.

tree—

culture experiments, *Rec. VIII*, 700.Jamaica, culture experiments, *Rec. VIII*, 700.notes, *Rec. VI*, 53, 722.varieties, *Bul. 2*, II, 89.vines, fertilizing ingredients, *Rec. V*, 391.winter diseases, *Rec. IV*, 352; *VI*, 423.

worm—

fungus diseases of, *Rec. III*, 10.notes, *Rec. I*, 22; *IV*, 840; *VIII*, 321, 611; *X*, 164, 867.remedies, *Rec. IX*, 446.

Tomatoes—

analyses, *Rec. II*, 78, 349, 671, 729; *III*, 189, 191; *IV*, 59, 827; *XI*, 843.and corn, canned, analyses, *Rec. V*, 220.okra, canned, analyses, *Rec. V*, 220.artificial pollination, *Rec. III*, 91; *IV*, 653; *IX*, 244; *XII*, 549.

Tomatoes—Continued.

- ash constituents, Rec. III, 190, 191.
- bagging, Rec. IV, 653, 921.
- breeding, Rec. II, 366; III, 409; IV, 921; VI, 51, 726; IX, 51.
- canned, analyses, Rec. IV, 59; V, 220.
- canning, Rec. VII, 36.
- canning industry, Rec. V, 799.
- chemical study, Rec. II, 350.
- coloring matters, Rec. III, 189.
- crossing, Rec. III, 91, 409; IV, 653, 921; VI, 51, 726; IX, 244.
- cultivating, marketing, and fertilizing, Rec. V, 983.
- cultivation in Europe and America, Rec. II, 347.
- cultural and botanical notes, Rec. II, 77.
- culture, Rec. VII, 584; IX, 357; X, 354; XII, 450, 551.
- culture—
 - experiments, Rec. IV, 39; VI, 51, 141, 296, 726, 807; VII, 120, 404, 864, 867; VIII, 313, 407; IX, 46.
 - in France, Rec. VI, 819.
 - method, Rec. III, 38.
- determination of—
 - sugar, Rec. IV, 802.
 - water in, Rec. II, 78, 670.
- double cropping with peas, Rec. XI, 739.
- double flowers and irregular fruit, Rec. II, 368.
- dropping of fruit, Rec. V, 790.
- dwarf, culture, Rec. XI, 451.
- early—
 - varieties, Rec. V, 189.
 - v.* late setting, Rec. II, 367; III, 407; IV, 548, 921.
- effect of—
 - breeding, Rec. II, 366.
 - copper sulphate in soil, Rec. IV, 15.
 - fertilizers, Rec. II, 348, 350, 556, 729; IV, 827.
 - heavy fertilizing, Rec. II, 366.
 - imperfect pollination, Rec. III, 91.
- electro-culture, Rec. V, 785.
- fall varieties, Rec. V, 189.
- farm manure *v.* commercial fertilizers for, Rec. III, 91.
- fertilizer—
 - experiments, Rec. I, 76, 261; II, 348, 366, 556, 729; III, 30, 91, 293, 299, 406, 626, 696, 879; IV, 39, 43, 143, 547, 548, 653, 813, 827; V, 171, 393; VI, 813; VII, 683; VIII, 225, 402, 406, 493, 885; IX, 553, 784, 947; X, 246, 548; XI, 445, 543, 738; XII, 344.
 - experiments in forcing, Rec. XII, 549.
 - formula, Rec. XII, 851.
 - requirements, Rec. VII, 499; IX, 139.
- fertilizers—
 - effect on earliness, Bul. 2, I, 67.
 - effect on quality, Rec. III, 409.
 - quick *v.* slow, Rec. IV, 547.
- fertilizing constituents removed from soil by, Rec. X, 247.
- field experiments, Rec. II, 77, 348, 556, 580, 670, 717.
- flat-grown *v.* pot-grown, Rec. IV, 549.
- forced, prevention of disease, Rec. IX, 457.

Tomatoes—Continued.

- forcing, Rec. IV, 653; V, 785; VII, 863; VIII, 225, 496; IX, 244, 1051; X, 149; XI, 1039; XII, 144, 344, 444, 549.
- forcing houses, Rec. III, 91.
- fresh and canned, Rec. XII, 798.
- grafting—
 - herbaceous, Rec. II, 508.
 - on potato, Rec. V, 875; XI, 850.
- greenhouse culture in spring and summer, Rec. IV, 411.
- growing—
 - and marketing, Rec. VII, 35.
 - under glass, Rec. IV, 653; V, 785; VII, 863; VIII, 496; IX, 244; X, 149; XI, 1039; XII, 144, 344, 444, 549.
 - under glass in summer, Rec. XII, 1039.
- growth as affected by—
 - incandescent gaslight, Rec. XII, 48.
 - weather, Rec. II, 350.
- hilling, Rec. III, 408; IV, 550.
- husk, notes, Rec. III, 617.
- in cold storage, Rec. V, 909.
- injury by—
 - corn worm, Rec. VI, 141.
 - plant lice, Rec. X, 570.
- insects affecting, Rec. III, 91; V, 792; VIII, 147.
- irrigation, Rec. VIII, 226; XII, 344.
- irrigation experiments, Rec. V, 691; XI, 738; XII, 54.
- keeping quality, Rec. III, 409.
- liming, Rec. XI, 739.
- liquid manure for, Rec. IV, 653; V, 584.
- manuring, Rec. II, 367; III, 91; V, 393; VI, 143.
- mixing, Rec. III, 409.
- mulching, Rec. IX, 947; XI, 738.
- muriate of potash for, Rec. II, 367; V, 393.
- nitrate of soda for, Rec. I, 261; II, 367; III, 30, 293, 299, 626, 879; IV, 43; V, 393; VI, 813; VIII, 493.
- notes, Rec. I, 276; X, 254, 547; XI, 850; XII, 340.
- phosphates for, Rec. VIII, 784.
- phosphoric acid for, Rec. VIII, 784.
- planting—
 - at different dates, Rec. IV, 848; VI, 51; XI, 738.
 - by different methods, Rec. VII, 867.
- pollenizing, Rec. VII, 771.
- pollination, Rec. IX, 244.
- potted *v.* transplanted plants, Rec. II, 728; IV, 43.
- potting, Rec. IX, 947.
- preservation in Italy, Rec. VIII, 1014.
- productiveness of early *v.* late germinating seed, Rec. XI, 738.
- pruning, Rec. VI, 51; VII, 122, 686; VIII, 784, 888; IX, 947; XI, 552.
- pruning and training, Rec. VII, 122.
- quality as affected by fertilizers, Rec. III, 409.
- quick *v.* slow fertilizers for, Rec. IV, 547.
- setting "leggy" plants, Rec. III, 408; IV, 549.
- shallow *v.* deep cultivation, Rec. VII, 771; VIII, 784.

Tomatoes—Continued.

- shearing young plants, Rec. IV, 550.
- spraying, Rec. VIII, 225; IX, 56.
- spraying—
 - experiments, Rec. XI, 752; XII, 352.
 - with copper solution, Rec. IX, 569.
- starting under glass, Rec. II, 61.
- subirrigation, Rec. V, 680; IX, 446.
- sugar and acid in, Rec. II, 350.
- thinning, Rec. XI, 243.
- training, Rec. V, 189, 584; VIII, 225, 784; XII, 340.
- training—
 - and benching, Rec. IX, 1051.
 - to single stem, Rec. III, 408; IV, 550.
- transplanting, Rec. II, 670, 728; III, 407; IV, 43, 549, 650; V, 189; VI, 51, 726; XI, 242.
- transplanting, effect on time of maturity, Rec. XII, 49.
- trellis for, Rec. II, 62; III, 610; VII, 584.
- trimming, Rec. II, 367; III, 407; IV, 550, 653.
- uses, Rec. XII, 345.
- value of crop—
 - in Maryland, Rec. II, 346.
 - Virginia, Rec. II, 77.
- varieties, Bul. 2, I, 33; Bul. 2, II, 34, 135; Rec. I, 76, 89, 123, 184, 188; II, 6, 23, 29, 52, 61, 69, 78, 318, 342, 348, 366, 368, 372, 392, 395, 511, 556, 566, 585, 586, 598, 607, 641, 659, 669, 670, 728; III, 38, 82, 85, 92, 282, 402, 410, 480, 514, 610, 622, 625, 626, 695, 724, 791, 808; IV, 43, 253, 352, 436, 550, 555, 653, 827, 828, 921; V, 53, 189, 585, 785, 786, 870, 871, 875, 1074; VI, 51, 52, 55, 56, 141, 142, 218, 423, 727, 810, 987, 988; VII, 123, 124, 125, 129, 212, 213, 302, 405, 686; VIII, 225, 784, 790, 888, 977; IX, 47, 244, 351, 447, 832, 948; X, 48, 149, 351, 639, 751; XI, 51, 250, 251, 451, 644, 738, 752, 845; XII, 341, 345, 449, 570, 647.
- varieties, running out, Rec. III, 410.
- water requirements, Rec. XII, 340.
- wire-trellising, Rec. VII, 584.
- yield, Rec. II, 368.
- yield on old and new lands, Rec. XI, 753.

Tomicus—

- cacographus*, notes, Rec. IX, 964.
- calligraphus*, notes, Rec. V, 884.
- chalcographus*, notes, Rec. VIII, 911.
- proximus*, biology, Rec. VI, 316.
- typographus*, notes, Rec. VIII, 911; IX, 471.

Tongue—

- analyses, Rec. IV, 59.
- of bees, anatomy, Rec. IX, 370.
- birds, anatomy, Rec. IX, 1031.
- toothed-horned fish fly, notes, Rec. I, 292.

Top-grafting, notes, Rec. VI, 992.

Topography—

- of Michigan, Rec. XII, 695.
- Nicaragua, Rec. XII, 797.
- Porto Rico, Rec. XII, 795.

Tornado—

- alarms, unnecessary, Rec. XI, 430.
- at Fort Smith, Ark., January 12, 1898, Rec. X, 124.
- Hampton Beach, N. H., July 4, 1898, Rec. X, 419.

Tornado—Continued.

- at New Richmond, Wis., June 12, 1899, Rec. XI, 620.
- Paris, France, September 10, 1896, Rec. VIII, 293.
- St. Louis, Mo., May 27, 1896, Rec. VIII, 207.
- fake, Rec. XI, 620.
- force, Rec. XI, 620.
- hurricane and cyclone, Rec. XI, 620.
- observations, Rec. XI, 620.
- of May 25, 1896, in Cook County, Ill., Rec. VIII, 475.
- June 18, 1897, in France, Rec. IX, 332.
- phenomena, Rec. XI, 620.
- photographs, spurious, Rec. XI, 430, 620.
- tracks, ancient, Rec. XI, 620.

Tornadoes—

- characteristics, Rec. XI, 429.
- frequency, Rec. IX, 24.
- in North Carolina, Rec. II, 288; III, 93.
- notes, Rec. XI, 432, 819; XII, 1015.
- of April and May, 1896, Rec. VIII, 207.
- May 3, 1895, Rec. VII, 474.
- May 25, 1896, in Michigan, Rec. VIII, 475.
- origin, Rec. X, 1018.
- prediction, Rec. VIII, 33; XI, 429.
- protection against, Rec. XI, 821.
- studies, Rec. IX, 122, 533.
- theory, Rec. IV, 871.

Tornillo beans—

- analyses, Rec. VIII, 331.
- notes, Rec. VIII, 306.

Torrents, prevention and correction by afforestation, Rec. IX, 452.

Torrey night shade, notes, Rec. XI, 354.

Torreya as a generic name, Rec. VI, 488.

Tortoise beetle—

- black-legged, notes, Rec. III, 309.
- golden, notes, Rec. III, 309.
- mottled, notes, Rec. III, 309.
- remedies, Rec. IV, 58; XI, 62.

Tortoise beetles, notes, Bul. 2, I, 179; Rec. V, 403; X, 458; XI, 273.

Tortricid—

- larva, notes, Rec. VI, 313.
- new species, notes, Rec. III, 183.
- species, notes, Rec. I, 134.

Tortricidia fasciola, food plants, Rec. IX, 574.

Tortrix—

- ambiguella*—
 - deposition of eggs, Rec. XII, 167.
 - development, Rec. XII, 167.
 - notes, Rec. VI, 442; X, 763; XII, 974.
 - remedies, Rec. XI, 871; XII, 662.

citrana, notes, Rec. VI, 313.*donelana*, notes, Rec. VII, 231.*dumetana*, notes, Rec. XI, 766.*fumiferana*, notes, Rec. VI, 313.*glaphyriana*, notes, Rec. XI, 173.*paleana*, notes, Rec. XI, 765; XII, 970.*pilleriana*, notes, Rec. XII, 974.*pomonana*, notes, Rec. VIII, 711.*resinella*, notes, Rec. X, 770.*ribeana*, notes, Rec. XI, 766.*rosaceana*, notes, Rec. I, 12.*viridana*, notes, Rec. VIII, 909; XI, 766.

- Tortrix—
 notes, Rec. VIII, 612.
 spring treatment against, Rec. V, 1100.
 sulphur-colored, notes, Rec. V, 791.
- Torula—
exitiosa, notes, Rec. XII, 464.
monilioides, notes, Rec. VII, 876.
 sp. in milk, Rec. XII, 388.
- Torymus macrophterus*, notes, Rec. IX, 965.
- Town waste, utilization, Rec. IX, 825.
- Townsend Hall, Ohio, description of building, Rec. IX, 801.
- Townsendia sericea*, notes, Rec. III, 52.
- Toxæmia hemoglobinuria of cattle, Rec. XI, 894.
- Toxalbumoses coagulating blood, Rec. IX, 720.
- Toxic properties of molds, Rec. VIII, 524; IX, 392.
- Toxicogenic bacteria in domestic animals, Rec. V, 512.
- Toxicology—
 compendium, Rec. XI, 112.
 of ricin, Rec. XI, 496.
- Toxicophlæa thunbergi*, seed production, Rec. XII, 855.
- Toxin and antitoxin mixtures, properties, Rec. XI, 390.
- Toxins—
 and antitoxins—
 antagonism, Rec. X, 597.
 effects on animals, Rec. VII, 937.
 as affected by bacteria and fungi, Rec. IX, 1092.
 constitution, Rec. XI, 390.
 determination in urine, Rec. XI, 23.
 effect—
 in digestive canal, Rec. XI, 194.
 on plants, Rec. XI, 122.
 nature, Rec. VII, 928.
- Toxoptera graminum*, notes, Rec. III, 811.
- Toxosporium abietinum*, notes, Rec. VII, 876.
- Toxotus schaumii*, notes, Rec. X, 168.
- Trachea piniperda*, notes, Rec. VIII, 711.
- Tracheary system of Leguminosæ, sieve plates in, Rec. IV, 870.
- Trachypogon polymorphus*, notes, Rec. II, 259.
- Traction—
 engine for plowing, Rec. V, 796.
 tests, Rec. VIII, 90, 935.
- Trade—
 and industry, domestic and foreign, Rec. IV, 429, 431.
 foreign—
 of the United Kingdom, Rec. IV, 431.
 statistics, Rec. V, 798.
 of Denmark, Rec. XII, 1098.
- Tradescantia*—
botryosporium, disease, notes, Rec. XII, 464.
brevifolia, notes, Rec. XII, 24.
gigantea, n. sp., description, Rec. XII, 24.
humilis, n. sp., description, Rec. XII, 24.
scopulorum, n. sp., description, Rec. XII, 24.
virginica, notes, Rec. IV, 654.
- Tragopogon porrifolius*, notes, Rec. V, 398.
- Tragus racemosus*, notes, Rec. II, 259.
- Trama radialis*, notes, Rec. XI, 564.
- Trametes*—
hispida, notes, Rec. V, 1100.
pinii, notes, Rec. X, 863; XII, 573.
- Trametes*—Continued.
pusilla on sugar cane, Rec. X, 365.
radiciperda, notes, Rec. X, 864; XII, 573.
trogii, notes, Rec. V, 1100.
- Transmission—
 and reversion, Rec. V, 434.
 of growth characteristics, Rec. XI, 910.
- Transpiration—
 and absorption in frosted plants, Rec. IV, 517, 680.
 and assimilation—
 experiments, Rec. VI, 280.
 studies, Rec. VII, 564.
 apparatus, notes, Rec. XII, 558.
 as affected by—
 gases, Rec. X, 825.
 humidity and soil fertility, Rec. VII, 926.
 as related to drying of seed, Rec. V, 728.
 effect of surface tension and cohesion, Rec. X, 22.
 excessive, of pear shoots, Rec. VI, 487.
 experiments, Rec. VII, 372; VIII, 988.
 in herbaceous grafts, Rec. IV, 870.
 moist tropical climate, Rec. IX, 625.
 of conifers and angiosperms, Rec. XI, 116.
 Halophytes, Rec. X, 23.
 plants, Rec. VII, 372, 463, 467, 560, 926; X, 122, 447, 822; XI, 118, 221, 908.
 of plants—
 and absorption as affected by freezing, Rec. IV, 680.
 apparatus for measuring, Rec. VII, 467.
 as affected by colored light, Rec. VI, 507.
 effect of internal and external conditions, Rec. VII, 467.
 in sunlight and shade, Rec. IV, 314.
 of scalded shoots, Rec. IV, 613.
- Transplanting—
 as affected by early root growth, Rec. XI, 511.
 effect on—
 heading of cabbages, Rec. I, 283.
 time of maturity of vegetables, Rec. XII, 49.
 for prevention of onion smut, Rec. VIII, 411.
 physiology, Rec. VII, 467.
- Transportation—
 facilities in Porto Rico, Rec. XII, 795.
 in the United States, Rec. XII, 497.
 rates, Rec. II, 518, 749; III, 107, 183, 253, 326, 414, 543, 632, 728, 813, 903; IV, 282, 429, 578, 675, 762, 850, 957; V, 221, 328, 799, 1088; VI, 87, 172, 347, 486, 582, 755, 943; VII, 73, 164, 259, 340, 433, 531, 812; VIII, 937; X, 298.
- Trap—
 crops—
 for cotton bollworms, Rec. IV, 204.
 insect pests, Rec. IX, 574.
 turnip fly, Rec. IX, 74.
 lights for cotton bollworms, Rec. IV, 204.
 sediment, Rec. XI, 214.
- Trapezonotus nebulosus*, notes, Rec. VI, 150.
- Traumatism and tuberculosis, Rec. XI, 193.
- Traumatotropic curvature of roots, Rec. VI, 506.
- Trechus*—
brandisi, n. sp., notes, Rec. VIII, 808.
dieltii, n. sp., notes, Rec. VIII, 808.
paganetti, n. sp., notes, Rec. VIII, 808.

Tree—

- and nursery stock law, Rec. VIII, 702.
- band, new form, Rec. IV, 84.
- bark, investigations, Rec. IX, 812.
- basts, notes, Rec. VI, 207.
- bean—
 - notes, Rec. I, 212.
 - prolific, analyses, Rec. II, 329.
- berberry, notes, Rec. III, 788.
- borers, kerosene for, Rec. III, 812.
- branches, lateral, cause of direction, Rec. XI, 319.
- canker, cultures, Rec. XI, 950.
- cricket—
 - snowy, notes, Bul. 2, II, 119; Rec. II, 420; III, 175, 313; IV, 830; V, 498; X, 164; XI, 871; XII, 664.
 - snowy, remedies, Rec. I, 138.
- culture, Rec. VIII, 604.
- cuttings—
 - distribution, Rec. XI, 855.
 - season for planting, Rec. XI, 51.
- diseases, Rec. X, 374.
- diseases, text-book, Rec. VI, 550; VII, 512.
- flora of Chiricahua Mountains, Rec. VI, 730.
- growth as affected by—
 - climate, Rec. IX, 562.
 - local conditions, Rec. X, 258.
 - weather, Rec. IX, 562.
- growth, effect of thinning forests, Rec. VI, 300.
- hopper—
 - Buffalo, notes, Rec. II, 169; III, 176; VI, 315, 562; IX, 262, 574, 675, 858; X, 164; XII, 664, 898.
 - Buffalo, on apples, Rec. V, 1104.
 - celery, Rec. IX, 151.
- lilacs, notes, Rec. III, 788.
- names, derivation and meaning, Rec. VII, 962.
- of heaven, notes, Rec. IV, 654.
- palms of the United States, Rec. VII, 869.
- planting, Rec. II, 512, 741; X, 637; XII, 652, 798.
- planting—
 - advantages, Rec. V, 304.
 - close pruning, Rec. VII, 501.
 - cooperative work, Rec. XI, 745; XII, 452.
 - directions, Bul. 2, I, 63.
 - economy, Rec. V, 303.
 - in Australia, Rec. XI, 1052.
 - desert places, Rec. X, 443.
 - Glencairn, Cathcart, Rec. VII, 962.
 - Nebraska, Rec. X, 856.
 - Oklahoma, Rec. XII, 755.
 - the Northwest plains, Rec. VII, 134.
 - the United States, progress, Rec. XII, 455.
 - the Western plains, Rec. VIII, 793; X, 643.
 - Utah, Rec. VI, 903; XII, 152.
 - Washington, Rec. III, 727.
 - waste places, Rec. IX, 563.
 - methods, Rec. XII, 1048.
 - notes, Rec. VI, 223.
 - on Mount Hamilton, California, Rec. III, 599; V, 589.

Tree—Continued.

- planting—continued.
 - on public streets, Rec. X, 443.
 - timber claims, Rec. I, 315.
 - ornamental, notes, Rec. XI, 745.
 - suggestions for, Rec. I, 86.
- root rot, notes, Rec. XI, 469; XII, 573.
- roots—
 - distribution, Rec. VII, 776.
 - germination tests, Rec. VII, 509.
 - in drain tile, Rec. VII, 630.
- seeds—
 - characteristics, Rec. V, 437.
 - depth of planting, Rec. VII, 509.
 - germination, Rec. VII, 509; VIII, 410.
 - germination experiments, Rec. V, 61.
 - planting, Rec. XII, 652.
- snowball, notes, Rec. III, 788; IV, 656; V, 991.
- sparrows, notes, Rec. XI, 428.
- trunks—
 - changes in temperature, Rec. VIII, 695.
 - chemical physiology, Rec. XI, 121.
 - chemical substances in, Rec. IX, 329.
 - permeability to grass, Rec. IX, 920.
- Trees—
 - affected by mistletoes, Rec. VII, 94.
 - and their leaves, Rec. VIII, 135.
 - tree growth, Rec. IV, 275; VII, 776; X, 417.
 - artificial feeding, Rec. VII, 962.
 - as a cause of soil exhaustion, Rec. VI, 881.
 - as affected by—
 - artificial root pressure, Rec. X, 751.
 - cold, Rec. VI, 781, 786.
 - drought, Rec. XII, 955.
 - lightning, Rec. VIII, 891; IX, 53, 563; XI, 1051, 1052; XII, 219.
 - wind, Rec. IX, 453.
 - ascent of water, Rec. VIII, 380.
 - at Canada Experimental Farm, Rec. XI, 942.
 - Iowa Station, Rec. III, 788.
 - Ontario Agricultural College, Rec. IX, 451.
 - Purdue University, Rec. XII, 24.
 - Steigen parsonage, Norway, Rec. VII, 506.
 - Utah Station, Rec. V, 53.
 - Australian, in Arran, Rec. VIII, 891.
 - beginning of increase in thickness, Rec. XII, 755.
 - broad-leaved deciduous, as affected by stem ringing, Rec. VIII, 864.
 - budding in winter, Rec. VI, 547.
 - cork-forming, Rec. VI, 821.
 - deciduous—
 - and coniferous, geographical distribution, Rec. IX, 651.
 - bud development, Rec. VI, 279.
 - geographical distribution, Rec. VI, 550.
 - varieties, Bul. 2, II, 91; Rec. II, 70; III, 404.
 - defoliation, Rec. IX, 962.
 - determination of age, Rec. IX, 651.
 - distribution of resin in, Rec. V, 925.
 - effect of electric light, Rec. IV, 315.
 - electric attraction, Rec. IX, 453.
 - emulsine-like ferment in fungi on, Rec. V, 819.
 - equilibrium between top and root, Rec. X, 223.

Trees—Continued.

- evergreen—
 - hardy, in New England, *Rec. XI*, 747.
 - transpiration in winter, *Rec. XI*, 910.
 - varieties, *Bul. 2, II*, 91; *Rec. III*, 404.
- experiments with uniform temperature, *Rec. X*, 616.
- flowers and fruits, *Rec. XII*, 827.
- for hedges, *Rec. VI*, 56; *VII*, 776.
- orchard windbreaks, *Rec. VII*, 508.
- for planting—
 - in California, *Rec. VIII*, 136.
 - France, *Rec. VIII*, 315, 605.
 - the West, *Rec. VI*, 903; *VII*, 776.
- for restoration of mountain forests, *Rec. XI*, 455.
- rocky soils, *Rec. X*, 1046.
- for shelter—
 - belts, *Rec. IV*, 728.
 - hedges, *Rec. VII*, 134.
- for street planting, *Rec. II*, 741; *VII*, 135; *VIII*, 890; *IX*, 951; *XII*, 650.
- street planting around San Francisco Bay, Cal., *Rec. X*, 223.
- timber, *Rec. IV*, 728.
- windbreaks, *Rec. I*, 276; *VI*, 56; *VII*, 508.
- foreign—
 - for German forests, *Rec. X*, 1046.
 - the Southern States, *Rec. VII*, 774.
- forest. (*See FOREST TREES.*)
- formation and distribution of starch, *Rec. XI*, 117.
- from Rancho Chico, California, *Rec. VI*, 223.
- South Asia acclimated in southern California, *Rec. IX*, 953.
- frost injuries to, *Rec. XI*, 515.
- frozen, treatment, *Rec. XI*, 252.
- fruit. (*See FRUIT TREES.*)
- growth as affected by—
 - decortication, *Rec. V*, 731.
 - distance of planting, *Rec. XI*, 455.
 - light and shade, *Rec. VII*, 870, 962.
- growth—
 - as related to climate, *Rec. VII*, 962.
 - in New Zealand, *Rec. VIII*, 315.
 - thickness, *Rec. IV*, 613.
 - relation to sap flow, *Rec. VIII*, 315.
- gum flow, *Rec. XI*, 28.
- hardiness, *Rec. XII*, 55.
- hardiness in the South and the North, *Rec. XI*, 1099.
- height growth in plantations, *Rec. XI*, 748.
- historic, *Rec. VII*, 869.
- impregnating with coloring solutions, *Rec. X*, 320.
- in cities, causes of destruction, *Rec. XI*, 458.
- infectious diseases, *Rec. VII*, 965.
- injury—
 - by chemicals, *Rec. XII*, 859.
 - illuminating gas, *Rec. XII*, 957.
 - mice, remedies, *Bul. 2, I*, 93.
 - of leaf buds by birds, *Rec. IX*, 53.
- insects affecting, *Rec. II*, 81, 115; *XII*, 770, 862, 1067.
- internal temperature, *Rec. VIII*, 134, 135, 695; *X*, 641.

Trees—Continued.

- large—
 - on Nantucket Island, *Rec. VI*, 487.
 - transplanting, *Rec. VI*, 223; *VIII*, 496.
- leafing, *Rec. XI*, 221.
- leafy, ash of heart and sap wood, *Rec. V*, 437.
- movement of water, *Rec. X*, 613.
- moving without a wagon, *Rec. XI*, 454.
- new useful, *Rec. VII*, 776.
- notes on species, *Bul. 2, II*, 136.
- observations—
 - on growth, *Rec. II*, 662.
 - root growth, *Rec. II*, 663.
- of Death Valley, California, *Rec. V*, 90.
- of Japan—
 - drawings, *Rec. XII*, 154.
 - timber characteristics, *Rec. XII*, 652.
- of Java, *Rec. VI*, 730; *XII*, 958.
- Michigan, adaptability and rate of growth, *Rec. XI*, 747.
- Nebraska, *Rec. III*, 521; *VI*, 301.
- Nebraska, notes, *Rec. XII*, 419.
- North America, enemies, *Rec. VII*, 869.
- Paris, *Rec. VIII*, 136.
- South Dakota, *Rec. VII*, 507; *VIII*, 315.
- Vermont, *Rec. XII*, 153.
- Wyoming, description, *Rec. XI*, 53.
- on tree claims, insects injurious to, *Rec. II*, 81, 115.
- organisms in sap of, *Rec. VII*, 928.
- ornamental, *Rec. IV*, 728; *V*, 682; *VIII*, 314; *IX*, 244; *X*, 97.
- ornamental—
 - cultivated for their flowers, *Rec. X*, 153.
 - diseases, *Rec. IX*, 568.
 - for Maine, *Rec. X*, 855.
 - Minnesota, *Rec. IV*, 654.
 - Ontario, *Rec. VI*, 56, 729.
 - insecticides for, *Rec. V*, 884.
 - pests of, *Rec. V*, 884; *VI*, 316; *XI*, 477.
 - planting, *Rec. XII*, 347.
 - planting in northwest Wisconsin, *Rec. VII*, 959.
 - propagation from seed, *Rec. IX*, 53.
 - Russian, tests, *Rec. XI*, 647.
 - varieties, *Rec. XI*, 852.
- parasitic fungi, *Rec. X*, 266.
- periodicity in growth, *Rec. X*, 966.
- planting and care, *Rec. V*, 303.
- propagating from seed, *Rec. VIII*, 890.
- propagation from cutting, *Rec. I*, 44.
- protection from rodents, *Bul. 2, I*, 93; *Rec. VIII*, 601.
- pruning, *Rec. IV*, 694; *VII*, 506, 772, 868; *VIII*, 314.
- rate of growth, *Rec. XII*, 1048.
- regulations of foreign governments regarding importation, *Rec. XII*, 775.
- relation between growth rings and annual rings, *Rec. X*, 642.
- rôle in nature, *Rec. VII*, 870.
- root pruning, *Rec. VIII*, 601.
- rotation of species under forest conditions, *Rec. VIII*, 794.
- sap flow as related to lightning current, *Rec. V*, 650; *VII*, 189.
- seedling, *Rec. II*, 7.

Trees—Continued.

shade. (See SHADE TREES.)

shrubs—

and climbers, selection and disposition,
Rec. X, 49.plants, growth on alkali soils, Rec.
VIII, 697.

species, Rec. III, 45, 246, 360, 361, 598.

species for—

groves, Rec. II, 741.

lawns, Rec. II, 741.

spraying, Rec. XII, 167.

spruce, of eastern North America, Rec. VIII,
136.

starch content, Rec. XI, 28.

street, pruning, Rec. VII, 506.

temperature, growth, and moisture content,
Rec. XII, 453.

temperatures, Rec. VII, 773.

timber—

and forest, culture, Rec. VI, 223.

for Minnesota, Rec. IV, 654.

notes, Rec. X, 252, 258.

of Cape of Good Hope, Rec. XII, 456.

Queensland, Rec. XI, 458; XII, 220,
455, 958.

the United States, Rec. VII, 774.

propagation from seed, Rec. IX, 53.

pruning, Rec. VIII, 314.

transplanted, watering, Rec. II, 443.

transplanting, Rec. VIII, 408, 496, 601; X, 999.

variation in elevation of branches, Rec. X,
612.

watering by new method, Rec. XI, 50.

winter—

condition of reserve food substances, Rec.
XI, 117.

injured, treatment, Rec. XI, 498.

killing, Rec. V, 682.

protection, Rec. X, 963.

Trefoil—

crimson, culture experiments, Rec. VI, 294.

culture experiments, Rec. VIII, 401.

notes, Rec. IV, 656.

yellow—

analyses, Rec. V, 171.

culture experiments, Rec. IV, 39, 661; V,
171.

notes, Rec. II, 597.

Trehalose—

digestion, Rec. VII, 834.

formation in plants, Rec. VII, 370.

in mushrooms, Rec. IV, 614; V, 1097.

studies, Rec. V, 817.

Treleasea—

brevifolia, notes, Rec. XII, 24.*leiandra*, notes, Rec. XII, 24.*tumida*, notes, Rec. XII, 24.*Trema aspera*, notes, Rec. XI, 220.*Tremellodon gelatinosum*, notes, Rec. IX, 960.*Tremex columba*, notes, Rec. IX, 858; X, 168.*Treptagon modesta*, notes, Rec. IV, 354.Tres Marias Islands, natural history, Rec. XI,
428.

Triangles—

for crucibles and dishes, Rec. XII, 109.

universal pipe stem, Rec. XII, 109.

Tribolium—*confusum*, notes, Rec. VII, 515; VIII, 241, 610;
IX, 65; XI, 952; XII, 1060.*ferrugineum*, notes, Rec. III, 702; IV, 417; VII,
43, 515; VIII, 241, 610, 612; IX, 65; X, 973;
XII, 1060.*madens*, notes, Rec. X, 66.*Tribulus terrestris*, notes, Rec. XI, 651.Tricalcium phosphate, solubility in water, Rec.
X, 218; XII, 609.

Trichina—

detection, Rec. XI, 290.

German inspection, Rec. X, 497.

identification, Rec. X, 999.

in meat, Rec. IX, 195.

infested pork, feeding experiments, Rec. XI,
797.

inspection, taking samples, Rec. XII, 392.

inspector, manual, Rec. XI, 594.

life history, Rec. X, 193.

studies, Rec. V, 654, 734, 927; VI, 245.

wandering, in hogs, Rec. X, 95.

Trichina spiralis, studies, Rec. VI, 245; X, 93.

Trichinoscope, description, Rec. XI, 290.

Trichinosis—

experimental, in spermophiles, Rec. VI, 932.

of swine, notes, Rec. III, 152.

Trichloris—

pluriflora, notes, Rec. III, 549.*verticillata*, notes, Rec. III, 549.*Trichobaris trinitata*. (See POTATO STALK BORER.)*Trichocephalus*—*affinis*, notes, Rec. II, 79; IX, 994.*nodosus*, notes, Rec. IX, 294.

Trichodectes—

castoris, notes, Rec. IX, 254.*climax*, notes, Rec. II, 79.*geomydis*, notes, Rec. II, 609.*limbatus*, notes, Rec. II, 79.*nephitidis*, notes, Rec. IX, 254.*parallelus*, notes, Rec. IX, 254.*scalaris*, notes, Rec. I, 45; VIII, 806.*sphaerocephalus*, notes, Rec. II, 79.

Trichodectes, notes, Rec. XI, 263.

Trichoderma and Mucor, Rec. VII, 656.

Trichoderma sp., notes, Rec. VII, 563.*Trichodytes anemones*, n. sp., notes, Rec. IX, 852.*Trichena rosea*, notes, Rec. VIII, 401.*Trichogramma*—*minutum*, notes, Rec. II, 116.*pretiosa*, notes, Rec. II, 319; VIII, 998; IX, 856;
X, 165.

sp., notes, Rec. II, 116; V, 631.

Tricholoma—*nudum*, culture experiments, Rec. X, 320.*saponaceum*, notes, Rec. IX, 960.

Trichomes—

of conifers, Rec. VII, 839.

on fern, Rec. VI, 487.

Trichomonas caviae, notes, Rec. XII, 394.*Trichophaga tapetzella*, notes, Rec. IX, 64; X, 655.Trichophyta, new, which produces herpes in
horses, Rec. X, 497.

Trichophyton—

minimum, notes, Rec. XII, 192.*tonsurans*, notes, Rec. III, 371; VI, 845.*Trichopoda pennipes*, notes, Rec. II, 496.

Trichoptera—

and Lepidoptera, similarity of nests and cases, Rec. VIII, 712.

protective mimicry of larvæ, Rec. VIII, 712.

thoracic glands in larvæ, Rec. VIII, 809.

Trichorrhexis nodosa, notes, Rec. IX, 393.

Trichosoma longicollis, notes, Rec. IX, 294.

Trichosphaeria—*sacchari*—

as a cause of sugar-cane disease, Rec. VIII, 317; XI, 759.

notes, Rec. V, 653; VI, 307; VII, 38, 410; X, 971; XII, 155.

underwoodii, notes, Rec. X, 725.

Trichosporium collæ, causing mold of butter, Rec. XI, 683.

Trichostema sp., notes, Rec. III, 598.

Tricolepis inornati, notes, Rec. IX, 767.

Tridax, revision of genus, Rec. VIII, 470.

Trifolium—

agrarium, notes, Rec. V, 171.

alexandrinum—

culture experiments, Rec. VI, 428.

notes, Rec. VII, 383.

beckwithii, notes, Rec. VI, 404; VIII, 306.

ciliatum, analyses, Rec. XII, 471.

eriocephalum—

analyses, Rec. XII, 471.

notes, Rec. II, 321.

gracilentum, notes, Rec. III, 599.

hybridum. (See CLOVER, ALSIKE.)

incarnatum. (See CLOVER, CRIMSON.)

involutatum, notes, Rec. II, 69.

medium—

culture experiments, Rec. X, 244.

notes, Bul. 2, II, 85; Rec. II, 238, 633; VI, 35, 294; VII, 26; X, 725.

microdon, notes, Rec. II, 69.

montanum, notes, Rec. V, 809.

pannonicum—

analyses, Rec. VI, 45; VIII, 45; X, 72.

as a fodder plant, Rec. VIII, 45.

notes, Rec. V, 907; VI, 808.

pratense. (See CLOVER, RED.)

pratense perenne, notes, Rec. VI, 35; X, 725.

repens. (See CLOVER, WHITE.)

repens latus, notes, Rec. VI, 35.

resupinatum, culture experiments, Rec. VI, 428.

sp., analyses, Rec. XII, 471.

subterraneum, notes, Rec. VIII, 689.

tridentatum, analyses, Rec. XII, 471.

wormskioldii, analyses, Rec. X, 276.

Trifolium seed, color variation in, Rec. XI, 1056.

Triglochin maritimum, notes, Rec. II, 486.

Trigoderma tarsale—

food habits, Rec. IX, 853.

notes, Rec. IX, 66.

Trigonella—

corniculata, notes, Rec. VI, 45.

fœnum græcum. (See FENUGREEK.)

Trigonoderus sp., notes, Rec. III, 47.

Trigonogenicus farctus in red pepper, Rec. VIII, 70.

Trimerotropis—

maritima, notes, Rec. IX, 574.

pseudo-fasciata, notes, Rec. III, 907.

Trimerus genicola, notes, Rec. VII, 595.

Trinidad—

agricultural industries, Rec. VII, 341.

Royal Botanic Gardens, report, Rec. VII, 38.

Trinodon minor, notes, Rec. IX, 254.

Triodia—

acuminata, notes, Rec. III, 549.

albescens, notes, Rec. III, 549; X, 343.

drummondii, notes, Rec. VIII, 748.

eragrostoides, notes, Rec. III, 549.

grandiflora, notes, Rec. III, 549.

nealleyi, notes, Rec. III, 549.

pulchella, notes, Rec. III, 549.

purpurea, notes, Rec. VIII, 781.

seslerioides—

analyses, Bul. 2, I, 108; Rec. VIII, 520.

notes, Rec. X, 343.

stricta, notes, Rec. III, 549.

texana, notes, Rec. III, 549.

trinervigiumis, notes, Rec. III, 549.

Trioza—

diospyri, notes, Rec. X, 570.

tripunctata, notes, Rec. VIII, 311.

Tripe—

analyses, Rec. IV, 59.

digestibility by man, Rec. VIII, 420.

Triphagnium ulmaria, culture experiments, Rec. VII, 563.

Tripsacum dactyloides—

analyses, Rec. V, 64, 65; VIII, 810.

notes, Rec. II, 601.

Triptogon imperator, notes, Rec. III, 53.

Trisetum—

argenteum, notes, Rec. X, 516.

barbatum, notes, Rec. IV, 951.

californicum, notes, Rec. IV, 498.

canescens, notes, Rec. IV, 498.

cernuum, notes, Rec. IV, 498.

hallii, notes, Rec. III, 549.

interruptum, notes, Rec. III, 549.

subspicatum, notes, Rec. II, 321.

Trissolcus murgantiæ as a parasite of the harlequin cabbage bug, Rec. V, 206; VII, 314.

Tristania—

conferta, notes, Rec. VII, 750; XI, 1052.

laurina, notes, Rec. XI, 1052.

suaveolens, notes, Rec. XI, 747.

Tristyla alboplagiata, notes, Rec. V, 328.

Tristyla, new genera, notes, Rec. V, 328.

Triticum, origin and development of sex organs, Rec. IX, 328, 624.

Triticum—

polonicum, notes, Rec. II, 392.

spelta. (See SPELT.)

spp., notes, Rec. V, 869.

Tritoma californica, notes, Rec. III, 812.

Trochilium—

apiforme, notes, Rec. XII, 166.

fraxini, notes, Rec. VIII, 146.

luggeri, notes, Rec. VIII, 146.

Trogosita corticalis, notes, Rec. X, 168.

Trogus exesorius, notes, Rec. II, 116.

Trombidium—

bulbipes, as a parasite of the gypsy moth, Rec. III, 869.

locustarum, notes, Bul. 2, II, 93; Rec. III, 228; VIII, 145; IX, 855.

spp., notes, Rec. VI, 236.

- Trondhjem, Norway, milk control station, report, Rec. XII, 289.
- Tropæolum, localization of active principles in, Rec. V, 729.
- Tropæolum-majus*. (See *NASTURTIIUMS*.)
- Tropical—
parasites, studies, Rec. VIII, 471.
plants, animal and plant parasites, Rec. XI, 948.
- Tropidocarpum gracile*, notes, Rec. III, 598.
- Tropidocarpum*, revision of genus, Rec. VII, 561.
- Tropon—
as food, Rec. XI, 1075.
residue—
for cows, Rec. XI, 86.
pigs, Rec. XI, 483.
- Trout—
culture, Rec. VII, 337.
culture for farmers, Rec. XII, 678.
young, death web of, Rec. VI, 564.
- Troximon* sp., notes, Rec. III, 598.
- Truck—
crops, diseases, Rec. VI, 825.
farming—
in California, Rec. VIII, 54.
Florida, Rec. X, 853; XI, 153.
Georgia, Rec. VI, 819.
North Carolina, Rec. VII, 404; XI, 497.
the South, Rec. VIII, 889.
statistics, Rec. II, 621.
- Truffles—
culture in Tripoli, Rec. VII, 867.
description and culture, Rec. V, 820, 1030, 1099.
germination of spores, Rec. X, 23.
new species, from Morocco, Rec. VIII, 134.
of Cyprus, Smyrna, and La Calle, Rec. VII, 308.
Greece, Rec. VIII, 313.
Spain, Rec. VIII, 134.
Switzerland, Rec. IX, 357.
Tunis and Tripoli, Rec. VI, 298.
vermal disease, Rec. IX, 61.
- Trumpet honeysuckle, notes, Rec. III, 522.
- Trunk kernel, notes, Rec. VIII, 705.
- Trupanea aphidivora*, notes, Rec. I, 13.
- Truxalinae of North America, revision, Rec. IX, 468.
- Trybliidiella pygmaea*, notes, Rec. III, 810.
- Trypanosoma—
agglutination, Rec. XII, 890.
cause of dourine in horses, Rec. XII, 893.
- Trypanosoma balbiani*. (See *OYSTERS*, *CYTOHEL-MINTHS*.)
- Trypeta—
acidusa, notes, Rec. XI, 558.
aqualis, notes, Rec. II, 746.
canadensis, notes, Rec. IV, 58; X, 1066.
fulminans, notes, Rec. VIII, 711; XII, 774.
ludens, notes, Rec. V, 409; VIII, 808; XI, 558.
musæ, n. sp., Rec. XI, 273.
pomonella. (See *APPLE MAGGOT*.)
- Tryphlodromus oleivorus*, notes, Rec. V, 409.
- Tsetse fly—
disease, Rec. VIII, 416.
disease—
in Zululand, Rec. VIII, 147, 806.
studies, Rec. XI, 92, 192, 592.
notes, Rec. XII, 792.
- Tsine, notes, Rec. IX, 1030.
- Tsuga—
canadensis. (See *HEMLOCK*.)
caroliniana, notes, Rec. IX, 651.
mertensiana, notes, Rec. VI, 143; IX, 651.
pattoniana, notes, Rec. VIII, 605.
- Tube carrier for hand centrifuge, description, Rec. XII, 391.
- Tuber formation, investigations, Rec. VII, 94; XI, 710.
- Tuberaceæ—
and Gastromycetes, parallelism, Rec. VIII, 565.
studies, Rec. IX, 357.
- Tubercle bacilli, Rec. IX, 293, 889.
- Tubercle bacilli—
actinomycotic form, Rec. IX, 94.
agglutination, Rec. X, 597; XII, 1087.
agglutination—
by tuberculous serums, Rec. XII, 892.
in experiments with dogs, Rec. XII, 993.
analyses, Rec. XI, 996.
and preventive serums, studies, Rec. X, 495.
as affected by—
fresh air, Rec. VII, 928.
growth in frogs, Rec. XII, 489.
oxygen under pressure, Rec. XII, 393.
ash analysis, Rec. X, 1016; XI, 996.
behavior in frogs, Rec. XII, 892.
biology, Rec. IX, 391; X, 495; XII, 1080.
chemistry, Rec. X, 794.
comparison of human and bovine, Rec. X, 690, 691.
cultural diagnosis, Rec. XII, 597.
culture on vegetable media, Rec. IV, 987.
destruction, Rec. V, 927, 1046; XII, 1083.
development as affected by microbes, Rec. XI, 394.
fats in, Rec. VII, 928; VIII, 104; XI, 996.
for tuberculin, Rec. X, 793.
group, acid-proof bacteria of, Rec. XI, 694.
growth, Rec. IX, 814; XI, 694; XII, 489.
growth—
action of other bacteria on, Rec. XI, 394.
on acid media, Rec. VIII, 926.
histogenesis, Rec. XI, 92.
immunizing properties of attenuated cultures, Rec. XI, 988.
in beef, demonstration, Rec. XI, 794.
butter, Rec. III, 423; IX, 689, 887; X, 189, 888, 995, 1092; XI, 387, 887; XII, 987.
cheese, Rec. X, 996; XII, 985.
dairy products, Rec. XII, 987.
human milk, Rec. VII, 95; XII, 393.
meat as affected by smoke, Rec. X, 597.
milk, Rec. IV, 214; VI, 669; VIII, 169, 929; XII, 290, 987, 1080.
- in milk—
destruction, Rec. XI, 999; XII, 1083.
detection, Rec. III, 928; IV, 214, 327; V, 1045; VI, 669; VII, 67, 95; VIII, 929; X, 286, 387; XI, 588, 678, 679, 790, 887; XII, 90, 92, 691.
effect of high temperature on, Rec. V, 927.
experiments in killing, Rec. XI, 386, 999.
retention of virulence, Rec. XI, 980.
thermal death point, Rec. XI, 1091; XII, 1080.

Tubercle bacilli—Continued.

- in oleomargarine, Rec. XI, 790.
- tissues, detection, Rec. XII, 391.
- inoculation experiments, Rec. VIII, 926.
- localization after inoculation into left ventricle, Rec. XI, 694.
- nomenclature, Rec. VIII, 473.
- persistence in the nasal passages of the guinea pig, Rec. XI, 894.
- phagocytosis, Rec. XI, 193.
- products, Rec. IX, 723; XI, 987.
- significance in sputum, Rec. XII, 490.
- staining, Rec. VIII, 524; IX, 94; XI, 996.
- staining, in milk, Rec. VII, 660.
- studies, Rec. X, 193; XI, 394.
- technique of preparation, Rec. XI, 794.
- weight of cultures, Rec. VIII, 524.

Tubercle disease of the grapevine, Rec. VIII, 141.

Tubercles—

- and other subterranean organs, coloring matter, Rec. V, 254.
- formed through inoculation, Rec. V, 848.
- in lungs of horses, Rec. VIII, 159.
- pigs fed raw milk and whey, Rec. VIII, 428.
- on potatoes, Rec. VI, 152.
- plant, review, Rec. V, 649.

Tubercular mammitis, Rec. VII, 893.

Tubercularia—

- persicinia*, notes, Rec. IX, 568; X, 651; XII, 962.
- vulgaris*, notes, Rec. IX, 359.

Tuberculin—

- artificial, Rec. XI, 494.
- composition, Rec. XI, 791.
- curative action, Rec. XII, 390, 490.
- determination of values, Rec. XI, 92.
- distribution in Pennsylvania, Rec. XII, 684.
- for diagnosing glanders, Rec. VII, 893; VIII, 332.
- in treatment of tuberculous guinea pigs, Rec. IV, 316.
- nature—
 - and uses, Rec. VI, 845.
 - of effect on tuberculosis bacillus, Rec. XI, 92.
- new, Rec. IX, 594.
- period during which potency is maintained, Rec. XI, 89.
- preparation and use, Rec. VIII, 525; XI, 490; XII, 691.
- protein in, Rec. V, 433, 648.
- tests, Rec. II, 534; III, 832, 928; IV, 316, 323, 359, 450, 519, 694, 987; V, 413, 608, 1022; VI, 80, 81, 165, 332, 333, 472, 575, 664, 666, 753, 844, 1023; VII, 66, 251, 252, 253, 617, 618, 709, 712, 805, 893, 987; VIII, 84, 85, 332, 333, 335, 523, 625, 924, 1016; IX, 293, 496, 594, 690, 891, 893; X, 94, 192, 296, 298, 395, 494, 596, 692, 794, 893, 894; XI, 89, 92, 189, 192, 193, 194, 285, 298, 494, 593, 695, 791, 794, 795, 893, 894, 987, 995, 1089, 1091, 1092; XII, 95, 290, 291, 594, 691, 892, 992.
- tests—
 - effect on milk, Rec. VIII, 553, 931, 933; X, 395.
 - in Norway, Rec. VII, 987; VIII, 624; IX, 891, 1090.
 - Scotland, Rec. VIII, 625.
 - Sweden, Rec. X, 596.

Tuberculin—Continued.

tests—continued.

- in Vermont, Rec. VIII, 625.
- Victoria, Rec. XI, 695.
- practical value, Rec. XI, 996; XII, 393.

Tuberculina—

- sbrozzii*, notes, Rec. XI, 469; XII, 359.
- solanicola*, notes, Rec. IV, 956.

Tuberculosis—

- among animals, Rec. V, 1046.
- and cooperative creameries, Rec. IX, 1088.
- subcutaneous ulceration, Rec. IX, 192.
- swine plague, Rec. VI, 575.
- swine plague, differential diagnosis, Rec. XI, 1091.
- traumatism, Rec. XI, 193.
- anthrax vaccination for, Rec. IX, 496.
- as affected by soluble products of Streptothrix, Rec. XI, 795.
- bacilli. (See TUBERCLE BACILLI.)
- bovine, Rec. IX, 185; X, 296, 395, 495, 694, 892, 895, 998.
- bovine—
 - and meningitis, Rec. XI, 193.
 - traumatism, Rec. XI, 193.
 - variola, Rec. XI, 193.
- attitude of European science, Rec. XI, 890.
- detection, Rec. IX, 893; XII, 390.
- experimental, treatment, Rec. XII, 393.
- fetal, Rec. XII, 992.
- frequency, statistics, Rec. XI, 794.
- generalized, Rec. XII, 992.
- heredity and acquired susceptibility, Rec. XI, 1087.
- in Argentina, Rec. XI, 694.
- Arkansas, Rec. VII, 251.
- Bavaria, Rec. IX, 391.
- Connecticut, Rec. VIII, 927.
- Europe, Rec. XI, 189.
- Finland, Rec. IX, 94; X, 193.
- France, Rec. XI, 193.
- Germany, Rec. V, 1063.
- Great Britain, Rec. IX, 892.
- Indiana, Rec. IX, 293.
- Maryland, Rec. IX, 94.
- Massachusetts, Rec. XI, 590, 1087.
- New South Wales, Rec. IX, 293; XI, 996.
- New York, Rec. VI, 666; VIII, 626.
- New Zealand, Rec. XI, 995; XII, 892.
- Norway, Rec. XI, 693.
- Ontario, Rec. VI, 80.
- Pennsylvania, Rec. VII, 252.
- Saxony, Rec. VIII, 626.
- South Carolina, Rec. XII, 291.
- 1899, bibliography, Rec. XI, 193.
- inoculation for, Rec. VI, 664; X, 94.
- inoculation from encapsulated abscesses, Rec. XI, 1091.
- inspection, Rec. XI, 193.
- investigations, Rec. XII, 686.
- Koch's lymph for diagnosing, Rec. II, 534.
- manual, Rec. XI, 92.
- mixed infection, Rec. XI, 694, 794.
- new diagnostics, Rec. XI, 89.
- notes, Rec. III, 23; V, 795; VIII, 1016; X, 597; XII, 685.

Tuberculosis—Continued.

bovine—continued.

occurrence in different breeds, Rec. XI, 694.

occurrence in various species of animals, Rec. XI, 790.

outbreak, Rec. XII, 690.

predisposing diseases, Rec. XI, 694.

pulmonary, diagnosis, Rec. XI, 1091.

serum diagnosis, Rec. XII, 1087.

serum of Maragliano for, Rec. XI, 996.

serum, treatment, Rec. XI, 194, 592, 795, 987.

suppression and prevention, Rec. V, 259, 734; VI, 844, 845; VII, 156, 526, 805; VIII, 929, 1015; IX, 192, 290, 591, 691, 393, 893, 992; X, 193, 596, 793, 896; XI, 394, 592, 694, 795, 1091; XII, 193, 290, 390, 393, 394, 992, 996, 1093.

susceptibility as affected by age, sex, and race, Rec. XI, 695.

temperature of animals, Rec. X, 896.

transmission, Rec. XI, 92, 189, 288, 494, 694, 689, 791, 889; XII, 594, 892, 1084.

transmission through meat and milk, Rec. XII, 597.

transmission through milk, Rec. II, 106; V, 439, 823, 973; VI, 844; IX, 94, 691; X, 888; XI, 494, 592; XII, 687, 1086.

trephine, Rec. XI, 494.

treatment, Rec. IV, 694; VI, 77, 81; VII, 709, 893, 987; VIII, 1016; IX, 992; X, 495, 596; XI, 794, 795; XII, 393, 791, 987.

zomotherapy for, Rec. XII, 791.

contagiousness, Rec. VII, 526.

control, Rec. XII, 193.

description and history, Rec. I, 82.

diagnosing—

with mallein, Rec. VI, 666.

serum from tuberculous animals, Rec. VI, 934.

diagnosis, Rec. VI, 80.

dissemination, Rec. II, 106; XII, 95.

dissemination by earthworms, Rec. III, 579; IV, 311.

effect on—

leucocytes, Rec. XII, 1093.

transfusion of blood of inoculated dogs, Rec. IV, 450.

fibrin formation, Rec. IX, 292.

frequency, statistics, Rec. XII, 95.

hereditary, Rec. IX, 993.

hereditary—

in calves, Rec. VIII, 928.

transmission, Rec. XII, 987.

transmission through the placenta, Rec. XII, 1087.

human—

and bovine, identity, Rec. XII, 394.

bovine, susceptibility of domestic animals to, Rec. XII, 1084.

as related to bovine, Rec. VIII, 1015; IX, 496, 893.

immunity of Gallinaceæ, Rec. IX, 94.

mortality from, Rec. XI, 692.

relation to that of birds, Rec. X, 495.

serum diagnosis, Rec. XII, 393.

Tuberculosis—Continued.

human—continued.

susceptibility of calves, Rec. X, 95.

transmission to animals, Rec. XII, 691, 1084.

treatment, Rec. XI, 996, 1092.

in asses, Rec. X, 193; XI, 393; XII, 490.

birds, Rec. VIII, 159; X, 495; XI, 794.

calves, Rec. XI, 193.

calves, congenital, Rec. XI, 394.

cattle, Rec. VII, 618; VIII, 428, 525, 625, 628, 1015, 1016; IX, 893, 899, 1093; X, 190, 193, 495, 694; XI, 995.

dogs, Rec. VIII, 928; XI, 794; XII, 1093.

domestic animals, Rec. VI, 80, 165, 245, 576; VII, 252, 804, 805, 893; XII, 1084, 1092.

fowls, Rec. XI, 593, 594, 985.

goats, Rec. V, 439; XI, 193, 794.

guinea pigs, Rec. XII, 993.

hens, culture products, Rec. V, 254.

horses, Rec. X, 495, 694, 896; XI, 393, 794; XII, 490, 793, 992.

man and other mammals, Rec. VIII, 159.

mules, Rec. XI, 393.

pheasants, Rec. XII, 892.

pigs, Rec. IX, 893; XI, 995; XII, 992.

poultry, Rec. XII, 894, 1092.

relation to animal industry and public health, Rec. V, 1046; VI, 77; VIII, 335.

sheep, Rec. VII, 712; XII, 685.

small animals, Rec. VIII, 928.

spayed cattle, Rec. X, 597.

infectious character, Rec. II, 106.

inoculation of dogs, Rec. III, 928; IV, 450.

intra-uterine infection, Rec. IX, 391.

micro-organisms producing in animals a mild form of, Rec. X, 496.

notes, Rec. VI, 472; X, 296; XI, 91, 190, 193, 393, 995; XII, 488, 790, 885, 892.

of kidneys, Rec. V, 1033.

the udder, Rec. X, 193; XII, 690.

pathology, Rec. XII, 393.

propagation by feeding uncooked residue to pigs, Rec. V, 439.

proposed investigations, Rec. IV, 263.

pulmonary, Rec. VIII, 1016.

pulmonary—

effect on kidneys, Rec. XII, 597.

in horses, Rec. X, 694.

Royal Commission, Rec. VI, 1024; X, 597.

serum diagnosis, Rec. XII, 393, 892, 1087, 1092.

serum therapy for, Rec. XI, 795.

studies, Rec. X, 597; XII, 92.

transmission—

from man to animals, Rec. XII, 691, 1084.

to man, Rec. V, 1041.

zomotherapy for, Rec. XII, 791.

Tuberculous—

animals—

infection from urine and feces, Rec. XI, 1086.

use of flesh, Rec. XI, 894.

cattle, infectiousness of blood, Rec. V, 927.

cows—

feeding milk to calves, Rec. XI, 870, 999; XII, 1086.

Tuberculous—Continued.

cows—continued.

infectiousness of the milk, Rec. VIII, 258, 334, 928; XI, 1086.

herd, breeding up nontuberculous herd from, Rec. XI, 986.

meat. (See MEAT, TUBERCULOUS.)

milk. (See MILK, TUBERCULOUS.)

Tuberoses, notes, Rec. V, 873.

Tuberos Labiatae, notes, Rec. V, 820.

Tubers—

carbohydrate reserve material, Rec. X, 1007.

cutting and mounting, Rec. IX, 330.

effect of drying on respiration, Rec. VI, 693.

splitting, cause, Rec. X, 519.

Tufted hair grass, commercial value, Rec. VIII, 28.

Tugrin fog dispeller, Rec. XI, 221.

"Tule fog," history, Rec. XI, 819.

Tulip—

bulbs, selerotium disease, Rec. IX, 362.

disease, Rec. IX, 659.

scale—

notes, Rec. VIII, 418; XI, 762.

remedies, Rec. XI, 762.

soft scale—

notes, Rec. IX, 664; XII, 365, 975.

remedies, Rec. XI, 66.

tree, forms, Rec. XII, 957.

trees, notes, Rec. V, 884.

Tulips, history and classification, Rec. XI, 650.

Tumblebugs, use, Rec. VI, 1003.

Tumbleweed—

common, notes, Rec. VIII, 795.

notes, Rec. IV, 699; V, 497, 529, 628; X, 343, 760; XI, 354.

root system, Rec. IV, 46.

Tumbling mustard. (See MUSTARD, TUMBLING.)

Tumor formations in animals, Rec. XII, 893.

Tumors—

caused by *Plasmodiophora brassicae*, Rec. XII, 685.

epithelial, on white mice, transmission and evolution, Rec. V, 349.

micro-organisms in, Rec. XII, 193.

skin, of horses and mules, Rec. VIII, 928.

Tumut tobacco, analyses, Rec. VI, 419.

"Tun twig borer," life history, Rec. XI, 1066.

Tungsten, separation from molybdenum, Rec. XI, 813.

Tunicin, studies, Rec. V, 252.

Tunis, agricultural study, Rec. V, 441.

Turf—

analyses, Rec. I, 80; XI, 157.

and grass plats, formation, Rec. V, 731.

carbohydrates in, Rec. IX, 808.

fermentation experiments, Rec. IX, 814.

oats—

culture, Rec. IX, 1048.

notes, Rec. X, 547.

pentosans in, Rec. IX, 808.

Turgescient swelling as related to infolded membrane, Rec. V, 253.

Turgor—

and temperature, effect on plant growth, Rec. VII, 561; VIII, 204.

Turgor—Continued.

as affected by—

light and temperature, Rec. VIII, 471.

nutrient salts, Rec. IX, 919.

Turin, Italy, Experiment Station, Rec. IV, 234.

Turkey foot grass, notes, Rec. VI, 97; VIII, 781.

Turkeys—

and how to grow them, Rec. IX, 481.

as hatchers, Rec. VIII, 428.

black head of, Rec. XI, 985.

breed tests, Rec. VII, 425.

breeds, Rec. XI, 972.

diphtheretic conjunctivitis of, Rec. V, 7.

disease, notes, Rec. IV, 263; VII, 426, 524, 891; VIII, 626.

entero-hepatitis, Rec. VIII, 158.

feeding experiments, Rec. X, 883.

new infectious disease, Rec. V, 1033.

parasites, Rec. VIII, 335.

production, Rec. V, 505.

Turkish honey, Rec. V, 655.

Turmeric paper as a test for Bordeaux mixture, Rec. X, 157.

Turnip—

aphis, notes, Rec. VI, 65, 317; XI, 957.

bacterial disease, Rec. XII, 1056.

beetle—

notes, Rec. XI, 562.

red, Rec. IX, 856.

red, notes, Rec. V, 630.

black rot, notes, Rec. XI, 56.

cabbage grafted on, Rec. V, 1089.

club root. (See also CABBAGE CLUB ROOT.)

club root, Rec. IV, 615, 876; VI, 147, 736, 996; VII, 700, 785, 788.

club root, treatment, Rec. VI, 736, 994; VII, 785; VIII, 893; IX, 654; X, 155, 443, 1050; XI, 56, 254, 255, 555, 750; XII, 57, 132, 352, 442, 572.

disease, notes, Rec. XI, 58.

downy mildew, Rec. III, 161.

flea-beetle, notes, Rec. II, 5; III, 198; IX, 856.

flea, notes, Rec. VI, 654; VII, 700, 882; IX, 74; XII, 159.

fly, notes, Rec. VI, 317; VII, 413; IX, 74.

gall weevil—

notes, Rec. VII, 882.

remedies, Rec. VI, 917; IX, 74.

gnat midge, notes, Rec. VIII, 909.

heart rot, notes, Rec. XI, 751.

leaf disease, Rec. I, 4; IV, 41.

leaf miner, notes, Rec. III, 792.

leaf spot, notes, Rec. XI, 751.

mildew, notes, Rec. VII, 413, 700, 962.

moth—

diamond-back, notes, Rec. IV, 415.

notes, Rec. VII, 231; VIII, 909.

root rot, notes, Rec. III, 307.

rot, undetermined species, Rec. IV, 400.

scab, notes, Rec. VII, 219.

seed—

germination test, Rec. V, 628, 910.

oil content, Rec. IX, 242.

silage, preparation, Rec. IV, 470.

weevil, red, notes, Rec. IV, 437.

white rot, notes, Rec. XI, 1061.

white rust, Rec. III, 161.

wild, eradication, Rec. XI, 858.

Turnips—

analyses, Rec. I, 136; II, 340, 589; III, 133, 159, 859; IV, 59, 437; VI, 37, 159, 410, 543, 569; VII, 677; VIII, 152; IX, 806, 872; X, 839; XI, 71. and ruta-bagas, culture, Rec. VI, 46. assimilation of carbonic acid by, Rec. IV, 613. composition as affected by fertilizers, Rec. VIII, 592.

crude phosphates for, Rec. IV, 131.

culture, Rec. IX, 357, 646; XI, 241.

culture experiments, Bul. 2, I, 89; Rec. IV, 346; VI, 296, 807, 890, 985; VII, 203; VIII, 223, 331, 402, 407; IX, 131, 444; XI, 832.

digestibility, Rec. IV, 570; IX, 476.

early v. late harvesting, Rec. XII, 536.

effect—

of fertilizers on feeding value, Rec. XI, 1072.

on butter, Rec. V, 724; X, 287.

milk, Rec. IX, 92; X, 287; XI, 81.

electro-culture, Rec. V, 783.

experiments in India, Rec. V, 333.

fall—

planting at different depths, Rec. X, 238. planting at different distances, Rec. X, 237.

thinning, Rec. X, 237.

varieties, Rec. V, 623; X, 237; XI, 631, 633.

fertilizer—

experiments, Rec. I, 3; III, 755; IV, 40, 131, 693, 783, 787; V, 708, 709, 713; VI, 139, 159, 889, 890; VII, 209, 577, 579; VIII, 126, 591; IX, 44, 550, 830; X, 836, 848; XI, 332, 543, 646, 833, 842; XII, 429, 536. formula, Rec. XII, 851.

fodder, Rec. X, 148.

for sheep, Rec. IV, 570; V, 920; VI, 159; X, 985, 1084; XI, 1071, 1077; XII, 173.

steers, Rec. V, 633; IX, 869.

kainit for, Rec. I, 4; IV, 41.

nematode on, Rec. V, 1011.

nitrate of soda for, Rec. V, 708, 709; VI, 159.

notes, Rec. VI, 220; X, 547; XI, 850.

Oidium balsamii on, Rec. V, 881.

on chalk soils, Rec. V, 708.

phosphate, South Carolina, for, Rec. IV, 132.

phosphates for, Rec. IV, 132; V, 713.

planting at different distances, Rec. I, 4.

rotting, Rec. VIII, 141, 412.

subsoiling for, Rec. XII, 628.

Swedish and rice meal v. hay for sheep, Rec. II, 464.

varieties, Rec. I, 4, 7, 254; II, 4, 6, 7, 69, 349, 395, 669; III, 128, 356, 360, 480, 719, 743; IV, 352, 766; VI, 142, 410, 416, 417, 418, 419, 890; VII, 124, 203, 209, 405, 579, 580, 581, 676; VIII, 889, 972, 973, 977; IX, 646, 827, 829, 830, 832, 833; X, 836, 1034; XI, 51, 251, 842; XII, 135, 229, 329.

v. kale for forage, Rec. IX, 132.

silage for pigs, Rec. III, 129, 133.

why for pigs, Rec. VII, 243.

water absorption of seed, Rec. XI, 1056.

winter varieties, Rec. XI, 251.

yield—

and food value per acre, Rec. IV, 568.

in Great Britain, Rec. III, 835.

yields on old and new lands, Rec. XI, 753.

Turpentine—

emulsion for pear tree psylla, Rec. IV, 473.

for plum black knot, Rec. I, 83.

spirits, for wireworms, Rec. III, 448.

timber—

report on, Rec. V, 96.

resin content after tapping, Rec. V, 96.

resistance to teredo, Rec. VII, 775.

tree, notes, Rec. VI, 301.

Turtles as enemies of the locust, Bul. 2, II, 93.

Tussock moth—

European, notes, Rec. IV, 661.

food plants, Rec. IX, 1064.

larvæ on elms, Rec. IX, 772.

natural enemies, Rec. IX, 1064.

notes, Rec. II, 669; V, 101, 310, 498; XII, 265.

remedies, Rec. VII, 881; IX, 467, 1064; XI, 558.

white-marked, Rec. VI, 316, 649; VII, 696; IX, 69; X, 1066.

white-marked—

notes, Bul. 2, I, 177; Rec. II, 651, 669; III, 54, 176, 396, 889; IV, 204, 661; V, 310; VI, 316, 649, 651; VII, 696, 881; VIII, 318, 804; IX, 69, 467, 964, 1064; X, 1066; XI, 170, 952; XII, 68.

parasites, Rec. X, 60, 69.

remedies, Rec. VIII, 318, 804.

willow, notes, Rec. IV, 661.

Twig—

beetles, notes, Rec. V, 311.

girdler—

hickory, notes, Bul. 2, I, 177.

notes, Rec. II, 14, 101, 419; III, 175; V, 498; VI, 1002; IX, 371.

remedies, Rec. IX, 371.

moth, peach, notes, Rec. IV, 417; IX, 858.

pruners, notes, Rec. X, 1062.

Twigs—

analyses, Rec. IV, 865.

and leaves as fodder, Rec. VI, 76.

digestibility, Rec. IV, 865.

ensiling for stock food, Rec. V, 822.

feeding—

to cattle, Rec. V, 822.

value, Rec. V, 927.

of trees and shrubs, notes, Rec. XII, 519.

winterkilling, Rec. XI, 343.

Twin bladder vicia, analysis, Rec. VI, 630.

Twine, binding, tests, Rec. VI, 252.

"Twitter," carnation, notes, Rec. V, 514, 875; VI, 440, 740.

Two-spotted mite, notes, Rec. V, 63.

Two-tail grass—

analyses, Rec. II, 487.

notes, Rec. II, 487.

Tychea phaseoli, notes, Rec. VII, 877.

Tydeus molestus, notes, Rec. VI, 469.

Tylenchus—

coffee, notes, Rec. X, 653.

devastatrix, notes, Rec. VI, 311; VIII, 908, 909; X, 165, 561; XI, 167, 259, 273, 429; XII, 261, 359, 462.

hordei, notes, Rec. XI, 259.

sacchari, notes, Rec. III, 278.

scandens, notes, Rec. IX, 1062; XI, 259, 429, 759, 948.

tritici, notes, Rec. XII, 1067.

Tyloderma—*foveolatum*, notes, Rec. X, 866.*fragariæ*, notes, Rec. II, 328, 405; III, 313; X, 369.*Tymnes tricolor*, notes, Rec. IV, 839.*Tympanites*, caused by—

fungus-infested cornstalks, Rec. XI, 592.

wild mustard, Rec. XI, 592.

Typha borer, notes, Rec. I, 292.*Typha latifolia*, notes, Rec. II, 487.*Typhlocyba*—*albopicta*, notes, Rec. I, 291.*bipunctata*, notes, Rec. X, 770.*coloradensis*, notes, Rec. VIII, 611.*comes*, notes, Rec. VII, 143; IX, 151; XII, 862.*crevecoeurii*, notes, Rec. X, 770.*dentata*, notes, Rec. X, 770.*illinoensis*, notes, Rec. X, 770.*partii*, notes, Rec. X, 770.*rosæ*, notes, Rec. I, 291; IX, 262; X, 65, 164.*rubroscuta*, notes, Rec. X, 770.*tunicarubra*, notes, Rec. X, 770.*vitifex*—

as affected by irrigation, Rec. IV, 666.

notes, Rec. IV, 58; VIII, 803.

vitis—

fungus diseases, Rec. III, 10.

notes, Rec. III, 8, 230, 886; VI, 316.

vulneata, notes, Rec. IX, 151.*Typhlopsylla*—*americana*, notes, Rec. IX, 254.*assimilis*, notes, Rec. IX, 254.*Typhoid*—

affections of horses, Rec. X, 192.

bacilli—and *Streptococcus* in man and animals, Rec. IV, 694.

in butter, Rec. III, 423; X, 995; XI, 786.

milk and butter, Rec. IV, 317; X, 995; XI, 786.

oysters, Rec. XI, 427.

growth as affected by coli bacilli, Rec. XI, 393.

penetration of hens' eggs by, Rec. VII, 524.

bacillus, study, Rec. IX, 594.

bacteria, destruction in cider, Rec. X, 322.

cultures, diagnosis, Rec. IX, 192.

fever—

and water supplies, Rec. VIII, 385.

as related to the dairy industry, Rec. XI, 817.

discussion, Rec. VI, 165.

growth of germs in various media, Rec. X, 391.

milk as a source of, Rec. VI, 84; VII, 529; X, 593.

serum diagnosis, Rec. IX, 193; X, 390.

transmission by insects, Rec. XI, 995.

formation of antagonistic substances, Rec. XI, 689.

immunity of lymphatic glands to, Rec. XI, 995.

serum diagnosis, Rec. IX, 194.

Typhoon in Hongkong, Rec. XII, 1016.

Typhoons—

and hurricanes, origin, Rec. VIII, 676.

of the Orient, Rec. XI, 620.

Typophorus—*canellus gilvipes*, notes, Rec. VIII, 806.*canellus*, notes, Rec. XI, 66; XII, 575.

Tyrogon for ripening Emmenthaler cheese, Rec. XII, 884.

Tyroglyphidæ sp., notes, Rec. VI, 567.*Tyroglyphus*—*ananas*, n. sp., notes, Rec. XI, 257.*feculæ*, notes, Rec. IX, 763.*heteromorphus*, notes, Rec. IX, 772.*longior*—

in linseed meal, Rec. X, 769.

notes, Rec. VII, 231; IX, 65; XII, 271.

phylloxera, notes, Rec. X, 169.*siro*, notes, Rec. V, 990; IX, 65.

sp., notes, Rec. X, 62.

Tyroglyphus, bibliography, Rec. XII, 867.

Tyrosin in mushrooms, Rec. VIII, 470.

Tyrosinase—

and laccase in mushrooms, separation, Rec. VIII, 743.

in fungi, Rec. VIII, 290.

notes, Rec. IX, 421.

Tystoft, Denmark, Experiment Station, Rec. IX, 718.

Udder—

anatomy and diseases, Rec. IX, 276; XI, 593, 796.

and milk of cows, effect of Glauber's salts, Rec. V, 823, 918.

bacteria in, Rec. XII, 184, 389, 591.

diseases, cause, Rec. X, 193.

yellow "Galt" of, Rec. V, 823.

Ulceration with and without micro-organisms, Rec. VII, 526.

Ulex europea, notes, Rec. IX, 41.*Ulmus*— (See also ELM.)*alata*, notes, Rec. VII, 870; XII, 157.*americana*, notes, Rec. II, 512, 663, 741; III, 521, 788; IV, 655; VIII, 604; XII, 153, 157.*campestris*, notes, Rec. VIII, 604; XII, 157.*fulva*, notes, Rec. III, 521; IV, 655; XII, 157.*montana*—*camperdownii*, notes, Rec. IV, 655.

notes, Rec. XII, 157.

racemosa, notes, Rec. IV, 655; VIII, 604; XII, 157.

spp.—

disease of, Rec. VII, 224.

notes, Rec. VII, 134.

suberosa, notes, Rec. VI, 821.

Ultuna, Sweden, Agricultural Institute, Rec. VII, 994; IX, 398, 706.

Umbelliferae—

digestibility of protein in, Rec. VI, 12.

Mexican, new species, Rec. VII, 657.

morphological studies, Rec. VI, 18; IX, 329.

new genera, Rec. VIII, 289.

parasitic *Æcidia*, Rec. XI, 167, 949.*Umbellularia californica*, antiseptic value, Rec. XII, 991.

Umber moth, mottled—

notes, Rec. VI, 442.

remedies, Rec. VII, 307.

Umbrella cloud, Rec. X, 325.

Uncinula—*adunca*, notes, Rec. VI, 305.*ampelopsidis*, notes, Rec. II, 32; VII, 769.

Uncinula—Continued.

- columbiana*, n. sp., notes, Rec. V, 279.
neccator, notes, Rec. V, 989; VI, 559.
prunastri on maple leaves, Rec. VII, 513.
spiralis. (See GRAPE POWDERY MILDEW.)

Undine, Italy, Experiment Station, Rec. IV, 236.

Undulating back swimmer, notes, Rec. I, 292.

Unicorn, prominent—

- description and treatment, Rec. III, 889.
 notes, Rec. IV, 838.

Uniola—*latifolia*—

- analyses, Rec. V, 64, 65.
 notes, Rec. X, 343.

palmeri, notes, Rec. IV, 951.

United States Department of Agriculture—

and its work, Rec. X, 397.

appropriations for—

- 1891-'92, Rec. II, 472.
 1892-'93, Rec. IV, 114.
 1895-'96, Rec. VI, 679.
 1896-'97, Rec. VII, 723.
 1897-'98, Rec. VIII, 839.
 1898-'99, Rec. IX, 901.
 1899-1900, Rec. X, 801.
 1900-1901, Rec. XI, 1098.
 1901-1902, Rec. XII, 803.

contribution to wealth of the country, Rec. XII, 698.

executive reports, Rec. IX, 698; XII, 997.

historical sketch, Rec. X, 196.

index to authors and publications, 1841-1897, Rec. X, 298.

notes, Rec. XII, 300, 1098.

publications of, Rec. VI, 87; X, 298.

relation of Weather Bureau to, Rec. XI, 126.

relation to Weather Bureau, Rec. XI, 126.

scientific—

- aids, Rec. XI, 1, 430.
 work, Rec. VII, 433.

United States—

agricultural colleges in, types, Rec. XI, 498.

Entomological Commission, report, Rec. III, 414.

National Museum, bulletins, Rec. V, 740.

seacoast and telegraph lines, instructions to operators, Rec. IX, 817.

Universities, meteorology in, Rec. XI, 819.

University—

College of North Wales, courses of instruction, Rec. IV, 785.

extension work in—

- agriculture, North Wales, Rec. IV, 786.
 colleges of agriculture, Rec. IX, 315.

of St. Petersburg, chemical laboratory, Rec. VI, 615.

Upland hay, analyses, Rec. IX, 969.

Uracanthus cryptophaga, notes, Rec. X, 769.

Uracis siemensii, notes, Rec. IX, 370.

Uranium solution for determining phosphoric acid, Rec. III, 924.

Uranotes melinus, notes, Rec. VI, 1003; X, 66; XII, 264.

Urban population in the South, Rec. VI, 486.

Urceola—

- brachysepala*, notes, Rec. XII, 827.
elastica, notes, Rec. XII, 827.
javanica, notes, Rec. XII, 827.
maingaiji, notes, Rec. XII, 827.

Urea—

ammoniacal decomposition, Rec. VII, 658.

and ammonia, determination in urine, Rec. XII, 512.

determination in urine, Rec. XII, 419.

excretion by the skin, Rec. XII, 977.

ferments, Rec. IX, 1028; X, 1017.

formation in the animal body, Rec. V, 1100, 1101.

modified method of determining, Rec. XI, 813.

Uredineae—

American, Rec. X, 763.

and their host plants, Rec. V, 653, 731, 1030; VI, 61.

biology, Rec. V, 663.

development, Rec. IX, 421.

fecundation, Rec. IV, 693; VII, 656.

haustoria, Rec. V, 345.

heterœcious, culture experiments, Rec. V, 818.

histological researches, Rec. IV, 615.

karyokinesis, Rec. VII, 188.

latent life, Rec. IX, 118.

life history, Rec. V, 818.

modification of characters, Rec. XI, 322.

new genera, Rec. IV, 516.

new species, Rec. II, 455; IV, 615; VI, 233, 832; IX, 525.

notes, Rec. V, 653; VII, 276, 563, 838.

nuclei, Rec. VII, 277, 466.

of Chile, Rec. VII, 750.

Mexico, notes, Rec. X, 365.

Ohio, Rec. V, 279.

San Francisco Bay region, Rec. VI, 436.

Switzerland, Rec. X, 763.

relationship of æcidial and teleutospore forms, Rec. XII, 354.

reproduction, Rec. VII, 371.

structural relations, Rec. VI, 647; VII, 371.

studies, Rec. VIII, 470; IX, 362.

Uredinopsis—

filicina, notes, Rec. VII, 276.

pteridis, notes, Rec. VII, 276.

struthiopteridis, notes, Rec. VII, 276.

Uredo—

aspidiotus, teleutospores, Rec. VII, 277.

cæoma-nitens. (See CÆOMA NITENS.)

cannæ, notes, Rec. IX, 457.

eriocomæ, notes, Rec. IV, 956.

gossypii, n. sp., notes, Rec. III, 328.

kuhnii, notes, Rec. VIII, 237; X, 57.

polypodii, notes, Rec. VI, 647.

similis, notes, Rec. IV, 956.

Urena lobata, notes, Rec. VI, 207; VII, 954.

Uric acid—

content of urine as affected by diet, Rec. VIII, 331.

determination, Rec. IV, 221; VIII, 104.

determination in—

guano, Rec. VIII, 286.

urine, Rec. VII, 558; IX, 420; X, 117; XII, 512.

fermentation by micro-organisms, Rec. VII, 929.

reducing power, Rec. XII, 587.

Urinary calculi of domesticated animals, Rec. XI, 592.

Urine—

- acidity and alkalinity, Rec. VII, 559.
- albumen in, Rec. VII, 558.
- analyses, Bul. 2, II, 43.
- analyses for detection of antipyretics, Rec. XII, 596.
- chlorin in, Rec. VII, 559.
- determination of—
 - nitrogen in, Rec. IV, 983; VI, 614; VIII, 22; X, 20.
 - sugar in, Rec. III, 924; IV, 221, 313; X, 608.
 - uric acid, Rec. VII, 558; IX, 420; X, 117; XII, 512.
- effect on formation and dispersion of ammonia in excreta of animals, Rec. IV, 388.
- fuel value, Rec. XII, 1072.
- glucosids in, Rec. VIII, 562.
- human—
 - analyses, Rec. XI, 313.
 - energy content, Rec. XII, 72.
 - nitrogenous constituents, Rec. IX, 480.
- in drinking water, detection, Rec. V, 255.
- method of analysis, Rec. XI, 23.
- nitrogen—
 - excretion after eating, Rec. VII, 804.
 - in, Rec. IV, 70.
 - loss, Rec. VII, 198, 292, 755; IX, 34.
 - loss in drying, Rec. XI, 1005.
- of milk cows, fertilizing constituents, Rec. XII, 927.
- pits, construction, Rec. VII, 757.
- poisonous action, Rec. X, 281.
- preservation, Rec. XII, 733.
- prevention of fermentation, Rec. XI, 229.
- proteids in, Rec. VIII, 562.
- reaction for albumen in, Rec. IV, 782.
- reducing power, Rec. XII, 512, 587.
- saccharine substances in, Rec. VIII, 563.
- secretion as affected by cold, Rec. IX, 1080.
- sulphur—
 - content in judging disease, Rec. XI, 483.
 - in, Rec. VII, 559.
 - variation in nitrogen excretion, Rec. VII, 804.
- Urocus albicornis*, notes, Rec. X, 1066.
- Urocerus, white-horned, notes, Rec. X, 1066.
- Urocystis—
 - cepulæ*, Rec. VIII, 224.
 - cepulæ*—
 - inoculation experiments, Rec. XI, 752.
 - nature and treatment, Rec. III, 847; IV, 659.
 - notes, Rec. II, 481; III, 307; IX, 656.
 - hypoxyis*, notes, Rec. IV, 956.
 - occulta*—
 - notes, Rec. III, 10; IV, 50; XI, 361; XII, 254.
 - treatment, Rec. XII, 461.
 - orobanches*, notes, Rec. XII, 859.
- Uromyces—
 - aconiti*, notes, Rec. XI, 468.
 - amygdali*, notes, Rec. VIII, 289.
 - andinus*, n. sp., notes, Rec. IV, 692.
 - andropogonis*, notes, Rec. IV, 956.
 - appendiculatus*, treatment, Rec. IV, 55.
 - betæ*—
 - notes, Rec. III, 783; VI, 560, 906; IX, 363.
 - on mangel-wurzels, Rec. IX, 957.

Uromyces—Continued.

- bicolor*, notes, Rec. VI, 114.
- caryophyllinus*, notes, Rec. IV, 54; VII, 141, 311; X, 453.
- cladii* on—
 - Arisæma triphyllum*, Rec. VI, 233.
 - Peltandra virginica*, Rec. VI, 233.
- eragrostidis*, notes, Rec. IV, 956.
- euphorbiæ*, notes, Rec. IV, 692.
- hordei*, notes, Rec. IV, 956.
- kuhnii*, n. sp., notes, Rec. III, 278.
- panici*, notes, Rec. IV, 956.
- phascoli*, notes, Rec. IV, 559.
- polygoni*, notes, Rec. IV, 50, 414.
- rhynchosporæ*, notes, Rec. IV, 956.
- rudbeckiæ*, notes, Rec. IV, 50.
- scutellatus*, similarity in different countries, Rec. VIII, 565.
- sp., notes, Rec. VI, 58.
- spp., in Ohio, Rec. IV, 414.
- striatus*, notes, Rec. II, 482.
- trifolii*, notes, Rec. II, 421, 422; III, 10, 217; IV, 50, 414.
- verrucipes*, notes, Rec. VI, 115.
- Uromyces of the Alpine primulas, Rec. IX, 852.
- Urophlyctis—
 - kriegeriana*, notes, Rec. VIII, 899.
 - major*, notes, Rec. VIII, 899.
 - pulposa*, notes, Rec. VIII, 899.
- Ursidæ in Idaho, Rec. III, 184.
- Urtica—
 - gracilis*, notes, Rec. VI, 207.
 - holoserica*, notes, Rec. III, 598.
 - nivea*, notes, Rec. II, 475; IX, 41.
 - urens*, notes, Rec. III, 598.
- Uruguay grasses, Rec. V, 925.
- Ustilaginæ—
 - new species, Rec. II, 455; VI, 233, 832.
 - notes, Rec. IX, 148, 362.
 - of Kansas, germination, Rec. VIII, 996.
 - sexual reproduction, Rec. V, 418.
- Ustilago—
 - arenariæ*, notes, Rec. VII, 278.
 - avenæ*. (See OAT LOOSE SMUT.)
 - avenæ lævis*. (See OAT LOOSE SMUT.)
 - boutelouxæ*, causing disease among horses, Rec. XI, 1090.
 - bromivora*, notes, Rec. VIII, 507.
 - carbo*—
 - culture experiments, Rec. VII, 693.
 - notes, Rec. XI, 361.
 - crameri*, studies, Rec. XII, 357.
 - cruenta*, culture experiments, Rec. VII, 693.
 - crus-galli*, n. sp., Rec. VI, 1000.
 - cyndodontis*, notes, Rec. XI, 949.
 - destruens*—
 - destruction of spores by formaldehyde, Rec. XII, 457.
 - notes, Rec. XI, 361.
 - dregeana*, notes, Rec. XI, 949.
 - esculenta*, notes, Rec. VII, 277; VIII, 800.
 - hordei*—
 - destruction of spores by formaldehyde, Rec. XII, 457.
 - notes, Rec. II, 342.
 - studies, Rec. XII, 356.
 - hyphodytes*, notes, Rec. IV, 50.

Ustilago—Continued.*lævis*. (See *Ustilago avenae lævis*.)*longissima*—

notes, Rec. X, 121.

poisoning of cattle, Rec. XII, 791.

maydis. (See CORN SMUT.)*medians*, n. sp., notes, Rec. VI, 738.*monilifera*, notes, Rec. VII, 278.*mulfordiana*, notes, Rec. VII, 278.*nuda*—

notes, Rec. II, 342; IV, 50.

studies, Rec. XII, 356.

ornata, n. sp., Rec. VI, 1000.*oryzæ*, identity, Rec. XI, 949.*panici-miliacei*, notes, Rec. IV, 50.*paraguariensis*, notes, Rec. XI, 949.*perennans*, studies, Rec. XII, 356.*pertusa*, n. sp., Rec. VI, 1000.*pustulata*, n. sp., Rec. VI, 1000.*rabenhorstiana* attacking crab grass, Rec. XI, 749.*receptaculorum*, notes, Rec. V, 418.*reiliana*—

notes, Rec. III, 287; IX, 60; XII, 357.

on corn, Rec. VII, 411.

sacchari, notes, Rec. III, 287; VIII, 237; X, 57; XII, 572*segetum*—

notes, Rec. II, 581; III, 127, 172.

treatment, Rec. XII, 461.

var., notes, Rec. VI, 714.

sorghii, notes, Rec. III, 287; VII, 140; IX, 145; XII, 357*sparsa*, notes, Rec. VIII, 671.*striaformis*, studies, Rec. XII, 358.*tonglinensis*, n. sp., notes, Rec. VI, 1000.*tritici folicola*, notes, Rec. VI, 147.*tritici*. (See WHEAT SMUT, LOOSE.)*violacea*, notes, Rec. V, 418.*virens*, identity, Rec. XI, 949.*Ustilago*, new species, notes, Rec. II, 455.*Utricularia*, seed development, Rec. X, 259.

Vaccination—

for anthrax, Rec. V, 1033; VI, 666; VII, 617; VIII, 523; IX, 93; XI, 193.

blackleg, Rec. X, 893; XI, 192, 494.

swine erysipelas, Rec. V, 1033.

contagious pneumonia of horses, Rec. XI, 394

Vaccine—

distribution, Rec. XI, 992; XII, 95.

virus—

cultivation in calves, Rec. XI, 195.

report of institution at Utrecht, for cultivating, Rec. XI, 195.

Vaccinium—*arboreum*, notes, Rec. XII, 1045.*canadense*, notes, Rec. XI, 931.*corymbosum*, notes, Rec. XI, 931.*nigrum*, notes, Rec. XI, 931.*pensylvanicum*, notes, Rec. XI, 931.

Vacuum—

and bacteriological oven, Rec. V, 729.

apparatus, Rec. IX, 116.

milk can, description, Rec. V, 656.

Vaginitis of cows—

cause, Rec. XI, 289.

treatment, Rec. XI, 192.

Vaginula—*hedleyi*, remedies, Rec. XI, 658.*leydigi*, remedies, Rec. XI, 658.*Valgus canaliculatus*, notes, Rec. VIII, 999.*Valsaria*—*coloradensis*, notes, Rec. VIII, 867.*hypoxylodes*, notes, Rec. III, 810.

Valenta acetic-acid test, Rec. VI, 274.

Valve pipette, new, Rec. VII, 273.

Van Houtten's spireæ, notes, Rec. VIII, 314.

Vanadium in plants, Rec. XII, 113.

Vandas spp., notes, Rec. IX, 358.*Vanduzee*, notes, Rec. V, 741.*Vanellus cristatus vulgaris*, notes, Rec. IX, 230, 530.*Vanessa*—*antiopa*, notes, Bul. 2, II, 58; Rec. I, 12, 232;

II, 116, 669; V, 101; VII, 141; IX, 858, 965;

X, 164; XI, 169, 952, 1100; XII, 167, 263.

atalanta, notes, Rec. IX, 662.*cardui*, means of distribution, Rec. XII, 663.*caryæ*, notes, Rec. X, 164.*Vanessa*, second generation, Rec. XI, 766.

Vanilla—

culture, Rec. VII, 867; XI, 452, 649; XII, 152.

culture in—

Mexico, Rec. VI, 545; XI, 153, 251, 1041.

Seychelles Islands, Rec. XI, 51.

drying, Rec. XI, 1048.

fertilization by bees, Rec. VI, 196.

greenhouse culture, Rec. XI, 1048.

notes, Rec. XII, 347.

pollination, Rec. XI, 251.

Vanilla planifolia, notes, Rec. X, 1044.

Vanillas of commerce, notes, Rec. VII, 276.

Vapor—

atmospheric, Rec. IX, 424.

thermo-regulator, Rec. VIII, 26.

Vapour moth, notes, Rec. XI, 66.

Vapors, effect on stomata, Rec. XI, 115.

Variability, relation of age of type to, Rec. VI, 488

Variation—

after birth, Rec. VII, 468.

and environment, Rec. VIII, 749.

in flowers, Rec. V, 539; VIII, 108.

flowers and fruits, Rec. VII, 217.

insects, Rec. VIII, 808.

maple trees, Rec. VIII, 794.

plants, Rec. VII, 19, 94.

Varieties—

effect of climate, Rec. VI, 992.

in fruits and vegetables, studies, Rec. VIII, 409.

origination, Rec. IX, 527.

promising, cause of failure, Rec. IV, 876.

simultaneous origin, Rec. VII, 19.

Variety—

testing, Rec. IX, 451.

testing—

at experiment stations, Rec. VIII, 353.

Woburn Experiment Fruit Farm, Rec. XII, 703.

cost, Rec. VII, 179.

methods, Rec. II, 266, 267, 269.

v. fertilizer testing, Rec. VIII, 46.

(See also various crops, fruits, etc.)

Variola and tuberculosus, Rec. XI, 193.

Varnish, physiological effect on animal body, Rec. IX, 1080.

Vaseline as an insecticide, *Rec. III*, 813.

Vasculose—

decomposable, in barnyard manure, *Rec. V*, 142.

in wheat and oat straw, *Rec. V*, 145.

Veal, analyses, *Rec. IV*, 59.

Veal, feeding for. (*See CALVES.*)

Vedalia—

cardinalis—

as an enemy of fluted scale, *Rec. I*, 301.

in New Zealand, *Rec. V*, 517.

notes, *Rec. VI*, 741; *VII*, 595; *X*, 1076; *XI*, 477.

spp., notes, *Rec. III*, 183, 812.

Vedalia—

colonization in Egypt, *Rec. IV*, 668.

exportation to Africa, *Rec. IV*, 84.

from Egypt, notes, *Rec. IV*, 373.

successful importation, *Rec. IV*, 668.

Vedalias, notes, *Rec. VI*, 740.

Vegetable—

albuminoids—

formation, *Rec. VII*, 271.

notes, *Rec. VI*, 272.

alkaloids—

acidimetric estimation, *Rec. VII*, 921.

and ptomaines, *Rec. X*, 116.

chemistry, *Rec. IX*, 323.

constitution, *Rec. XI*, 619.

determination, *Rec. VII*, 272, 559.

study, *Rec. VI*, 691.

study of indicators, *Rec. VII*, 651.

and fruit gardens for farmers, *Rec. VI*, 993.

cell membranes—

carbohydrates in, *Rec. V*, 817.

chemical composition, *Rec. V*, 434.

cells, centrosomes in, *Rec. VI*, 388.

cheese, "natto," *Rec. VI*, 672; *XII*, 280.

dietary, additions to, *Rec. VIII*, 821.

fat, determination, *Rec. VIII*, 667; *X*, 20.

fats and oils, *Rec. IX*, 696.

ferments, *Rec. V*, 128.

fibers, *Rec. VI*, 485.

foods—

and condiments, *Rec. VIII*, 330.

spontaneous combustion, *Rec. IX*, 620.

garden. (*See GARDENING.*)

growing in the South for northern markets, *Rec. IX*, 245.

growths in water, *Rec. V*, 255.

industry in Australasia, *Rec. XI*, 547.

ivory, analyses, *Rec. II*, 154; *III*, 162.

marrow—

culture, *Rec. VII*, 687; *IX*, 51.

notes, *Rec. VII*, 504.

materials, lecithin content, *Rec. V*, 654, 803.

matter—

decomposition, *Rec. VIII*, 479.

iron in, *Rec. VII*, 18.

milk, analyses, *Rec. VIII*, 536.

mold—

analyses, *Rec. VI*, 522; *VII*, 294.

as litter, *Rec. V*, 144.

new, Japanese, *Rec. VII*, 687.

novelties and notions, *Rec. VIII*, 889.

oils—

and butter, chemistry of, *Rec. VII*, 364.

detection in butter, *Rec. VI*, 271.

Vegetable—Continued.

oils—continued.

detection in lard and suet, *Rec. X*, 118.

examination, *Rec. VII*, 529.

treatise, *Rec. XI*, 482.

organisms as affected by arsenic, *Rec. X*, 321.

oxidizing ferments, *Rec. VIII*, 749.

parasites—

insect and fungus, *Rec. IX*, 74.

useful, *Rec. VII*, 310.

pear—

analyses, *Rec. V*, 159.

culture experiments, *Rec. V*, 189.

notes, *Rec. XII*, 853.

physiology, *Rec. X*, 321, 612.

physiology—

as applied to fruit tree culture, *Rec. XI*, 451.

related to agriculture, *Rec. VII*, 438.

at the stations, *Rec. V*, 270.

development, *Rec. VII*, 277.

in agricultural colleges, *Rec. IX*, 297.

laboratory apparatus for, *Rec. VIII*, 471.

studies, *Rec. IX*, 119.

with reference to agricultural plants, *Rec. VIII*, 291.

products, stored, insects affecting, *Rec. IX*, 852; *XI*, 956.

proteids, crystallized, *Rec. IV*, 934.

rennet ferment, *Rec. V*, 130, 1049.

resources of India, notes, *Rec. VI*, 347.

seeds—

culture for market, *Rec. VI*, 548.

germination tests, *Rec. IV*, 436.

home-grown *v.* northern, *Rec. X*, 547.

home production, *Rec. II*, 28; *III*, 461; *V*, 55.

saving, *Rec. VII*, 404.

tests, *Rec. II*, 317; *III*, 356; *IX*, 360; *XI*, 750.

vitality, *Rec. XII*, 563.

vitality tests, *Rec. IX*, 54, 360; *X*, 258.

(*See also SEEDS.*)

silk from milkweeds, *Rec. VI*, 207.

spiralism, *Rec. VII*, 467.

tallow, Chinese, *Rec. VIII*, 667.

teratology and pathology, *Rec. VII*, 468.

textiles of the French colonies, *Rec. VIII*, 401.

tissues, healing of incisions, *Rec. VII*, 839.

Vegetables— (*See also specific kinds.*)

and fruits—

digestibility, *Rec. IX*, 780.

exhibit at the World's Fair, *Rec. VI*, 993.

for cultivation in North Carolina, *Rec. VII*, 131.

value in diet, *Rec. IX*, 175.

apparatus for sterilizing, *Rec. V*, 1051.

as affected by temperature, *Rec. VII*, 587.

assimilation of copper, *Rec. VIII*, 566.

canned—

analyses, *Rec. V*, 219; *XI*, 769.

lead in, *Rec. V*, 221.

methods of analysis, *Rec. V*, 220.

swells in, *Rec. X*, 197.

canning, *Rec. VI*, 821; *XII*, 558.

Chinese—

notes, *Rec. VIII*, 313; *XI*, 1047.

varieties, *Rec. VI*, 217.

Vegetables—Continued.

- cooked, composition, *Rec. III*, 750, 831.
- cooking, *Rec. IX*, 677, 779; *X*, 197.
- copper content, *Rec. VIII*, 107.
- culture, *Rec. II*, 58, 582; *V*, 436; *VI*, 220; *IX*, 754; *X*, 639; *XI*, 250.
- culture—
 - experiments, *Rec. III*, 886; *VI*, 299, 424; *XII*, 51.
 - in Alaska, *Rec. XII*, 630.
 - Arizona, *Rec. XII*, 753.
 - Australia, *Rec. VI*, 220.
 - northwest Wisconsin, *Rec. VII*, 959.
 - the West Indies, *Rec. VI*, 423.
- digestibility, *Rec. IX*, 780.
- diseases, *Rec. VII*, 141.
- electro-culture experiments, *Rec. V*, 784.
- English—
 - and continental varieties, *Rec. VII*, 585.
 - in America, *Rec. IX*, 51.
- effect of transplanting on time of maturity, *Rec. XII*, 49.
- fertilizer—
 - experiments, *Rec. IX*, 832; *XI*, 341; *XII*, 51, 442, 851.
 - requirements, *Rec. XI*, 649.
- fertilizers for, *Rec. II*, 491.
- forcing, *Rec. VI*, 548; *VII*, 504, 687; *IX*, 754, 950; *X*, 853; *XI*, 153; *XII*, 753.
- fungi affecting, *Rec. XII*, 359.
- garden, *Rec. IX*, 246, 247.
- glossary of scientific terms, *Rec. V*, 983.
- growing season, *Rec. X*, 962.
- grown for exhibit at the World's Fair, *Rec. VI*, 53.
- improvement—
 - in culture, *Rec. VII*, 585.
 - of varieties, *Rec. II*, 659.
- in diet, value of, *Rec. IX*, 175.
- insect and fungus diseases, *Rec. IX*, 74; *XI*, 272.
- insects affecting, *Rec. V*, 63; *VI*, 1002; *VII*, 141; *VIII*, 417; *X*, 165; *XII*, 862.
- irrigation, *Rec. VII*, 258, 504; *IX*, 245.
- losses in boiling, *Rec. IX*, 677, 779.
- market in Florida, *Rec. VIII*, 49.
- mulching, *Rec. IX*, 645.
- nitrate of soda for, *Rec. X*, 639; *XII*, 150.
- notes, *Rec. IX*, 247; *XI*, 850.
- open air, *Rec. IX*, 949.
- originating, *Rec. X*, 354.
- packing and shipping, *Rec. VI*, 821.
- planting and cultivation, *Rec. VII*, 123.
- plowing to different depths, *Rec. IV*, 44.
- preservation, *Rec. VII*, 308; *XII*, 54.
- remedies for diseases and insects affecting, *Rec. IX*, 62.
- Russian varieties, *Rec. XI*, 251.
- tests, *Rec. X*, 151.
- tillage to different depths, *Rec. IV*, 44.
- varieties, *Bul. 2*, *II*, 33, 81; *Rec. VI*, 53; *VII*, 959.

Vegetarian carrion beetle, notes, *Rec. VI*, 442.

Vegetation—

- action of soil water on, *Rec. VI*, 869.
- as affected by—
 - fertilizers, *Rec. I*, 128.
 - lime, *Rec. XII*, 222.

Vegetation—Continued.

- as affected by—continued.
 - nickel salts, *Rec. V*, 539.
 - shade, *Rec. X*, 610.
 - solar radiation, *Rec. V*, 345.
 - variation of climate, *Rec. VIII*, 291.
 - weather, *Rec. XI*, 31.
- chemistry of, *Rec. XI*, 620.
- denudation, *Rec. XI*, 319, 747.
- effect on flow of rivers, *Rec. XII*, 797.
- experiments, *Rec. V*, 378; *VIII*, 537.
- experiments. (*See also* POT CULTURE.)
 - use in soil analysis, *Rec. IX*, 820.
 - with nitrogenous fertilizers, *Rec. XI*, 720,
- forest, and nitrogen, *Rec. IX*, 227.
- in atmosphere devoid of oxygen, *Rec. V*, 539, 617.
- influence on climate and rainfall, *Rec. X*, 327.
- of Jendland, studies, *Rec. VII*, 750.
- period as related to ocean temperature, *Rec. XI*, 223.
- rôle of phosphoric acid, *Rec. X*, 122.
- station at Halle, equipment, *Rec. V*, 379.
- vernal, in arid regions, *Rec. XI*, 422.

Vegetative organs—

- as modified by grafting, *Rec. XI*, 344.
- of plants, *Rec. VII*, 467.

Vehicles—

- dynamometer tests, *Rec. V*, 735.
- wide tires for, *Rec. VI*, 1029.

Veins of insects, anatomy, *Rec. VII*, 44.Velleda lappet moth, *Rec. IX*, 858.

Velvet—

- bean—
 - ash analyses, *Rec. XI*, 231.
 - botanical relationship, *Rec. X*, 749.
 - Florida, culture, *Rec. XI*, 241.
 - hay, analyses, *Rec. XII*, 234.

beans—

- analyses, *Rec. IX*, 275; *XI*, 138, 1026; *XII*, 378.
- culture, *Rec. X*, 749; *XI*, 341, 442.
- culture experiments, *Rec. VIII*, 117; *IX*, 241, 243; *X*, 96; *XII*, 1036.
- for forage, *Rec. XII*, 332.
- soil improvement, *Rec. XI*, 232.
- notes, *Rec. IX*, 833; *X*, 182, 397, 749; *XI*, 341, 1047; *XII*, 329, 332, 943.

grass—

- analyses, *Rec. III*, 629, 709.
- culture experiments, *Rec. VI*, 807.
- for forage, *Rec. III*, 29.
- notes, *Rec. III*, 41; *V*, 910; *VI*, 97, 542.
- slender, notes, *Rec. XII*, 332.

leaf—

- notes, *Rec. III*, 308; *V*, 947.
- root system, *Rec. IV*, 46.

Venoms, toxins, and antitoxic serums, studies, *Rec. VII*, 67.Ventilating device for stables, *Rec. VII*, 72.

Ventilation—

- and construction of dairy barns, *Rec. IV*, 180; *VI*, 1029.
- effect on wintering bees, *Rec. X*, 268.
- natural and artificial, *Rec. XI*, 598.
- notes, *Rec. V*, 261.
- of cheese cellars, *Rec. VI*, 674.

- Ventilation—Continued.
 of cow stables, warmed air for, Rec. VII, 797.
 system for chemical laboratory, Rec. V, 539.
- Venturi meter, Rec. X, 797.
- Venturia inaequalis*—
 notes, Rec. XII, 262.
 on American fruit, Rec. XI, 655.
- Veratrine as an insecticide, Rec. II, 319; V, 686.
- Veratrum*—
sabadilla, notes, Rec. V, 686.
viride, notes, Rec. X, 516.
- Verbascum*—
blattaria, notes, Rec. II, 655; IV, 47; V, 398;
 VI, 822.
phlomoides, notes, Rec. IX, 1024; X, 359.
thapsus—
 notes, Rec. IV, 47; V, 398, 497.
 root system, Rec. IV, 46.
- Verbena*—
 mildew, treatment, Rec. III, 619.
 wild, notes, Rec. X, 343.
- Verbena*—
officinalis, notes, Rec. III, 598.
urticaefolia, notes, Rec. V, 911.
- Verbesina encelioides*, notes, Rec. IX, 142.
- Verbesina*, studies, Rec. XI, 121.
- Verdigris*—
 for oat smut, Rec. II, 639.
 stinking smut of wheat, Rec. III, 286.
 solution for potato rot, Rec. V, 307.
- Vermicularia*—
circinans, notes, Rec. II, 481; III, 307.
denudata, notes, Rec. IV, 50.
stachydis, n. sp., Rec. VI, 1000.
subeffigurata, notes, Rec. III, 308.
- Vermin Exterminator, Smith's Electric, analyses, Rec. XII, 67.
- Vermin, feathered, Rec. VIII, 961.
- Verminol—
 as an insecticide, Rec. XII, 578.
 tests, Rec. XI, 1057.
- Verminous bronchitis, Rec. VII, 249; VIII, 428.
- Verminous bronchitis in calves, Rec. XII, 395.
- Vermont—
 apple crop, Rec. VIII, 408.
 Trotting Horse Breeders' Association, exhibit,
 Rec. III, 729.
- Vermuth, wines used in manufacture of, Rec.
 VII, 530.
- Vernonia*—
altissimus, notes, Rec. III, 893.
noveboracensis—
 analyses, Rec. III, 629.
 notes, Rec. III, 893.
- Veronica peregrina*—
 notes, Rec. III, 598.
 root system, Rec. IV, 47.
- Veronicas, cultivated, Septoria disease, Rec. VI,
 312.
- Verrucosis of citrus trees, Rec. XI, 861.
- Versailles, France, National Horticultural School
 at, Rec. VI, 222.
- Vertigo—
 clinical study, Rec. XI, 91.
 in poultry, notes, Rec. XII, 894.
- Vespa*—
germanica, notes, Rec. IX, 63.
maculata, notes, Rec. IX, 63.
- Vespertilio gryphus*, notes, Rec. X, 25.
- Vespertilionidae in Idaho, Rec. III, 184.
- Vesperugo carolinensis*, notes, Rec. X, 25.
- Vespidæ vaccine, studies, Rec. IX, 925.
- Vesteras, Sweden, Chemical and Seed Control
 Station, report, Rec. VII, 717; IX, 380.
- Vesuvius, production of nitrogen salts in crater,
 Rec. XII, 717.
- Vetch—
 analyses, Bul. 2, I, 181; Rec. II, 50, 200, 329,
 580; V, 875; VI, 569, 1008; VII, 155; VIII,
 520; XII, 471.
 and oats—
 analyses, Rec. III, 153, 157, 375, 410; IV,
 66; V, 195, 596; IX, 873.
 as a forage plant, Rec. III, 376.
 a soiling crop, Rec. V, 1065.
 culture experiments, Rec. V, 171; VIII,
 970.
 digestibility, Rec. XI, 566.
 fertilizer experiments, Rec. VI, 293.
 for cows, Rec. III, 153; IV, 65; VII, 320.
 pigs, Rec. II, 676.
 soiling, Rec. II, 580; IV, 29, 480.
 and soy beans, ensiling, Rec. VI, 918.
 as a catch crop, Rec. VIII, 779; IX, 941.
 a silage plant, Rec. VII, 27.
 as an orchard cover, Rec. IV, 822; V, 874.
 bird, culture, Rec. X, 245.
 bitter, feeding experiments, Rec. VII, 599.
 Chinese, analyses, Rec. VIII, 520.
 culture, Rec. X, 432.
 culture experiments, Bul. 2, I, 88, 190; Rec.
 I, 89; III, 82, 159; IV, 39, 661; V, 808, 843;
 VI, 35.
 Dakota, culture, Rec. X, 245.
 digestibility, Bul. 2, I, 181; Rec. VIII, 511.
 false, culture experiments, Rec. VI, 35.
 for green manuring, Rec. XII, 534.
 for jack-pine plains, Rec. II, 357.
 germination tests, Bul. 2, I, 30.
 green, analyses, Rec. V, 194.
 hairy—
 agricultural value, Rec. V, 436, 627.
 analyses, Rec. II, 580; VII, 299; XI, 922.
 as a forage plant, Rec. XI, 921.
 culture, Rec. VI, 419; VII, 210, 498; IX,
 446, 1048; X, 43.
 culture experiments, Rec. I, 122; III, 860;
 IV, 646; V, 1072; VI, 35, 405, 886; VII,
 120; VIII, 401; IX, 41; X, 244, 430; XI,
 339; XII, 230.
 culture in Arkansas, Rec. XII, 634.
 digestibility, Rec. VIII, 511.
 for green manuring, Rec. V, 699; VI, 412;
 XI, 1037.
 hay, analyses, Rec. V, 1073; VIII, 520.
 hay, digestibility, Rec. VIII, 511.
 in southern France, Rec. VIII, 224.
 inoculation experiments, Rec. X, 837;
 XII, 843.
 notes, Rec. I, 89; II, 580, 650; V, 627, 1030,
 1072; VI, 35; VII, 27, 397; VIII, 402; IX,
 41; X, 244, 547; XII, 329, 332, 936.
 on soil treated with carbon bisulphid,
 Rec. VII, 32.
 study, Rec. VII, 681.
 hay, digestibility, Rec. VII, 317.

Vetch—Continued.

horse beans, and peas for green manuring, Rec. XII, 534.
inoculation experiments, Rec. III, 499; IV, 782; X, 837; XII, 745, 843.

kidney—

analyses, Rec. V, 171; VI, 294; VII, 296.
ash analyses, Rec. V, 438.
culture, Rec. IX, 446; X, 43.
culture experiments, Rec. IV, 39, 646, 661; V, 171; VI, 34, 294, 405, 531; VII, 295.
digestibility, Rec. X, 1082.
Nitragin experiments, Rec. XII, 745.
notes, Rec. III, 51, 85; V, 910.

lecithin content, Rec. V, 803.

Narbonne, culture experiments, Rec. VI, 405.

perennial, notes, Rec. V, 871.

Pods, digestibility, Bul. 2, I, 181.

proteids of, Rec. VIII, 371; X, 214, 219.

purple, poisoning by, Rec. VII, 252.

sand—

analyses, Rec. XI, 436, 883; XII, 378.
culture experiments, Rec. VII, 27; XI, 44, 339.
for green fodder, Rec. IV, 315.
notes, Rec. VII, 397.
time of seeding, Rec. IV, 315.
with rye for soiling, Rec. V, 256.
with winter wheat for soiling, Rec. V, 256.

seed—

germination tests, Rec. V, 910.
v. peanut cake for cows, Rec. VIII, 626.

seeds, analyses, Rec. III, 375.

spring—

analyses, Rec. V, 171; VI, 294; XI, 436; XII, 471.
culture, Rec. X, 43.
culture experiments, Rec. I, 122, 254; III, 860; IV, 646; V, 39, 171; VI, 294, 405, 542; VII, 295; IX, 41.
digestibility, Rec. X, 1082.
nitrogenous constituents, Rec. VII, 924.
notes, Rec. II, 70, 200, 329, 601; III, 159; VI, 35, 294; IX, 41; XII, 329.

stolley, notes, Rec. X, 147, 542.

vines, analyses, Rec. III, 375.

white, culture, Rec. VI, 405, 419.

wild—

analyses, Rec. VI, 404.
culture experiments, Rec. VIII, 970.
notes, Rec. VIII, 306.

winter—

agricultural value, Rec. V, 627.
as a cover crop, Rec. X, 252; XI, 538.
culture, Rec. X, 43.
culture experiments, Rec. VII, 295.
for green manuring, Rec. XI, 1037.
notes, Rec. IV, 248.

wood—

disease, Rec. VI, 647.
notes, Rec. VI, 46, 141.

Vetches—

as forage crops, Rec. XII, 45.
green manure for wheat, Rec. IV, 208.
effect on milk production, Rec. VII, 64; VIII, 626.
for green manuring, Rec. IX, 446.

Vetches—Continued.

imported, tests, Rec. XII, 234.
notes, Rec. II, 70, 200, 601, 650; VII, 121, 954; VIII, 781; XII, 234, 827.
Russian, notes, Rec. XII, 42.
varieties, Rec. IV, 411; IX, 833.

Veterinarians—

laboratory records for, Rec. X, 793.
State, list, Rec. XI, 998.
station—
and local, cooperation, Rec. X, 793.
cooperation with local veterinarians, Rec. XI, 998.
on State Boards of Health, Rec. X, 793.

Veterinary—

colleges of France, reports, Rec. VI, 1024.
Congresses, International, Rec. VII, 2; X, 700; XI, 493.
control of creamery herds, Rec. IV, 318.
cooperative experiments, value, Rec. X, 793.
department of India, report, Rec. X, 794.
hygiene, Rec. VIII, 928.
laboratory of Norway, report, Rec. VII, 987.
materia medica for farmers, Rec. VII, 526; VIII, 159.
medicine—
bibliography, Rec. XI, 195.
literature, Rec. X, 795.
relation to human medicine, Rec. VII, 618.

medicines, Rec. X, 896.

microbiology, manual, Rec. IX, 195.

myology, nomenclature, Rec. XI, 285.

report for Russia, 1896, Rec. XI, 693.

service in—

Bosnia and Herzegovina, Rec. XI, 794.
Hungary, report, Rec. XI, 793.
Norway, Rec. XI, 693.

work—

at Mississippi Station, Rec. VIII, 525.
of the experiment stations, Rec. XI, 301; XII, 601.

Vibrio in spring water, new species, Rec. IV, 693.

Vibrios, Ling's lactic acid, Rec. VII, 278.

Viburnum—

demetronis, notes, Rec. VIII, 470.
dentatum, notes, Rec. IV, 656.
lentago, notes, Rec. III, 522; IV, 656.
opulus, notes, Rec. IV, 656; V, 991.
plicatum, notes, Rec. VIII, 314.

Vichka seed, analyses, Rec. XI, 575.

Vicia—

acutifolia, analysis, Rec. VIII, 520.
altissima, analyses, Rec. X, 72.
americana, analyses, Rec. VI, 406.
cracca, notes, Rec. V, 934; X, 245.

dumetorum—

as a fodder plant, Rec. VII, 580.
notes, Rec. VI, 46, 141.

faba— (See also HORSE BEANS.)

abnormal embryos, Rec. IV, 692.
chemical changes in germination, Rec. XI, 749.
germination and growth in rarefied air, Rec. XII, 909.
growth in darkness, Rec. XII, 910.
leavenworthii, notes, Rec. X, 147.

Vicia—Continued.

- monatha* as affected by lime, Rec. VII, 397.
- narbonensis*, notes, Rec. VI, 45.
- pisiformis*, notes, Rec. V, 808, 809.
- sativa*. (See VETCH, SPRING.)
- sepium*, notes, Rec. V, 935.
- silvatica*—
 - notes, as a fodder plant, Rec. VII, 580; Rec. V, 935.

villosa. (See VETCH, HAIRY.)

Vicia seeds, hydrocyanic acid in, Rec. XI, 748.

Victor—

- corn and oat feed—
 - analyses, Rec. XI, 279.
 - digestibility, Rec. XI, 566.
- feeds, analyses, Rec. XII, 169.

Victoria regia, heating water for, Rec. VII, 688.

Victuals and beverages, sterilizing apparatus, Rec. VII, 155.

Vienna, Austria, Seed Control Station—

- regulations and standards, Rec. XII, 350.
- report, Rec. IV, 618; V, 122; VII, 872; VIII, 891; XII, 350.

Vigna catjang. (See COWPEA.)

Vignin of cowpea, analysis, Rec. VIII, 520; IX, 518.

Ville's, G., views on agriculture, Rec. V, 662.

Vilmorin, H. L. de, biographical sketch, Rec. XI, 201.

Vinca major, leaf parasite, Rec. XII, 359.

Vine—

- beetle—
 - striped, notes, Bul. 2, II, 119.
 - striped, remedies, Rec. I, 138.
 - twelve-spotted, notes, Rec. V, 992.
- chafer—
 - lesser, notes, Rec. V, 402, 403.
 - spotted, remedies, Rec. IX, 371.
- cutter, improved, Rec. VII, 506.
- cuttings, analyses, Rec. XII, 39.
- disease, California—
 - notes, Rec. IV, 380, 498.
 - treatment, Rec. IV, 499, 500.
- leaf clubbing, Rec. VI, 233.
- leaf hopper, Rec. II, 419; IX, 664.
- leaf hopper—
 - as affected by irrigation, Rec. IV, 666.
 - notes, Rec. III, 230, 886.
- mesquite grass, analyses, Rec. VIII, 331.
- moth bug, Rec. IX, 262.
- weevil, black, notes, Rec. VI, 442.
- worm, notes, Rec. X, 569.

Vinegar—

- acetic—
 - acid in, Rec. VII, 272, 650.
 - fermentation, Rec. V, 441; VII, 20.
- acid in—
 - determination, Rec. V, 647.
 - determination by endiometric method, Rec. XI, 618.
- adulterants, Rec. XII, 557.
- adulteration, Rec. V, 258; X, 1077; XI, 971.
- analyses, Rec. IV, 64; V, 194; X, 281, 413; XI, 312, 313, 314, 770, 1075; XII, 79, 279, 280, 586, 823.
- and vinegar making, Rec. IX, 982.

Vinegar—Continued.

- artificial—
 - production, Rec. VI, 969.
 - studies, Rec. X, 79.
- bacteria, Rec. X, 1016; XI, 715.
- detection—
 - of caramel, Rec. XI, 312.
 - mineral acid in, Rec. VII, 834.
- determination of sulphuric acid, Rec. X, 412.
- fermentation, Rec. XII, 694.
- flies, notes, Rec. IX, 65.
- from alcohol, Rec. X, 79.
- honey, Rec. VII, 530.
- whey, Rec. V, 1067.
- fruit, analyses, Rec. IX, 982.
- investigations, Rec. V, 129, 824.
- making, Rec. IX, 982.
- manufacture, Rec. IV, 616; VII, 719; IX, 1094; XII, 557, 996.
- manufacture—
 - automatic process, Rec. V, 441.
 - rapid process, Rec. V, 254.
- notes, Rec. XII, 677.
- "pure cider," Rec. X, 181.
- reducing substances in, Rec. X, 79.
- solids and ash, Rec. XII, 477.

Vines—

- and climbers, list, Rec. II, 70.
- crown gall, Rec. VI, 431.
- diastase, Rec. VII, 20.
- frozen, treatment, Rec. IX, 52.
- grafting, Rec. V, 1099.
- ornamental, Rec. XII, 754.
- ornamental, for Minnesota, Rec. IV, 654.
- planting at foot of large trees, Rec. IX, 140.
- protection against spring frosts, Rec. VII, 18.
- pruning, Rec. VII, 36, 687, 772.
- pruning grafted, Rec. V, 1099.

Vineyard of the Polytechnic School at Zurich, Rec. V, 256.

Vineyards— (See also GRAPES and VITICULTURE.)

- distance of planting, Rec. VI, 637; XI, 937.
- green manuring, Rec. XI, 452.
- management, Rec. IV, 828; X, 355.
- manuring, Rec. V, 437, 548, 1034; VI, 638.
- mildew in, treatment, Rec. VI, 436.
- of Champagne, Rec. V, 129; VII, 505.
- the Gironde, Rec. VII, 960.
- the Lower Loire, Rec. VII, 868.
- Soir-et-Cher, Rec. VII, 868.
- planting and culture, Rec. IV, 44.
- protection against spring frosts, Rec. V, 1030.
- reestablishment, Rec. VII, 772; XII, 151.
- renovation of old vines, Rec. VII, 586.
- replanting with American vines, Rec. XI, 450.
- restoration by hybrids, Rec. VII, 308, 687.
- surface *v.* subirrigation for, Rec. VII, 430.

Vinification—

- in the Province of Salta, Rec. X, 152.
- recent progress, Rec. XI, 294.
- studies, Rec. VIII, 348.

Viola—

- calaminaria*, zinc content, Rec. XI, 1013.
- tricolor*, notes, Rec. IV, 654.

Violet—

- anthracnose, notes, Rec. III, 307; X, 449.

Violet—Continued.

- aphis, black, notes, Rec. XII, 575.
- culture—
 - new method, Rec. XI, 154.
 - treatise, Rec. XI, 852.
- damping, treatment, Rec. VII, 695.
- disease, Rec. IV, 53, 54; VI, 1000; X, 449.
- disease—
 - new, Rec. XI, 261.
 - notes, Rec. V, 193.
- diseases, treatment, Rec. X, 456, 457; XI, 752.
- leaf spot, notes, Rec. III, 307; VIII, 899; X, 449; XI, 463, 759; XII, 961.
- leaves, insect injury, Rec. IX, 470.
- mildew, notes, Rec. III, 307; X, 449.
- root diseases, Rec. III, 773.
- roots, nematodes, Rec. III, 308.
- spot disease, notes, Rec. XII, 963.
- white mold, notes, Rec. III, 307.

"Violet mixture," as a fungicide, Rec. XI, 166.

Violets—

- analyses, Rec. X, 253.
- Colletotrichum* sp. on, Rec. IV, 54.
- culture, Rec. VII, 405, 869; X, 356, 855; XII, 451.
- culture experiments, Rec. X, 449; XI, 552.
- electro-culture, Rec. IV, 351.
- gall worms on, Rec. IV, 54.
- giant, notes, Rec. XI, 353.
- Glomosporium* sp. on, Rec. IV, 54.
- greenhouse investigations, Rec. XI, 750.
- growing in sterilized soil, Rec. XII, 254.
- nematode disease, prevention, Rec. XI, 947.
- Phlyctænia ferrugalis on, Rec. IX, 470.
- propagation, Rec. XI, 937.
- shading, Rec. XI, 454.
- trained in tree-like form, Rec. XI, 155.
- varieties, Rec. IX, 141.
- wood fungus disease, prevention, Rec. XI, 947.

Viper venom, vaccine studies, Rec. IX, 925.

Viper's bugloss, Rec. IX, 453, 758.

Virginia—

- creeper, notes, Rec. III, 521, 788; IV, 656; IX, 451.
- Good Roads Convention, proceedings, Rec. VI, 942.
- phosphates, studies, Rec. VII, 196.
- phosphatic marls, analyses, Rec. V, 165.

Virgin's bower, notes, Rec. IV, 656.

Virus—

- absorption by the conjunctiva, Rec. XI, 697.
- preservation in glycerin, Rec. IV, 695.

Viscogen, preparation and use, Rec. IX, 181, 584.

Viscosimeter, Lamansky-Nobel, Rec. X, 413.

Viscosity—

- apparatus for testing, Rec. VII, 162.
- of lubricating materials, Rec. VI, 1027.

Viscum, germination, Rec. IX, 812.

Vitellin, chemistry of, Rec. VIII, 373.

Viticultural—

- experiments in Italy, Rec. IV, 239.
- instruction in Italy, Rec. IV, 329.
- school at Waedensweil, Switzerland, Rec. V, 541.
- Society of Cognac, meetings, 1893 and 1894, Rec. VI, 56.

Viticultural—Continued.

- station of Neauphle-le-Chateau, observations at, Rec. X, 152.
- work at California Station, Rec. V, 190.
- Viticulture— (*See also* GRAPES and VINEYARDS.)
 - in Algeria, Rec. XII, 854.
 - Australia, Rec. IX, 52.
 - Beaujolais, Rec. X, 440.
 - Brazil, Rec. XI, 154.
 - Cape Colony, Rec. XI, 852.
 - Hérault, Rec. XII, 648.
 - Russia, Rec. XI, 744.
 - the Province of Salta, Rec. X, 152.
 - the United States, Rec. XI, 852.
- International Congress at Paris, Rec. XII, 205.
- manual, Rec. XII, 55.
- modern, Rec. X, 854.
- practical manual, Rec. XI, 936.
- studies, Rec. X, 49.

Vitis—

- astivalis*, notes, Rec. III, 521; VI, 637.
- amurensis*, notes, Rec. XI, 745.
- berlandiera*, notes, Rec. V, 1096.
- californica*, notes, Rec. VI, 637.
- candicans*, notes, Rec. VI, 637.
- cinerea*, notes, Rec. VI, 637.
- cordifolia*, notes, Bul. 2, II, 88; Rec. III, 521; V, 1096; VI, 637.
- labrusca*, notes, Bul. 2, II, 88; Rec. VI, 637.
- palmata*, notes, Rec. VI, 637.
- riparia*, notes, Rec. III, 521; IV, 656; V, 1096; VIII, 701.
- rotundifolia*, notes, Rec. VI, 637.
- rupestris*, notes, Rec. V, 1096; VI, 637; VIII, 701.
- vinifera*, notes, Bul. 2, II, 88; Rec. V, 1096; VI, 637.
- vulpina*, notes, Rec. VI, 637.

Vivaria insect, lighting, Rec. II, 179.

Vivianite, analyses, Rec. VII, 835.

Vivipara alata, notes, Rec. IX, 575.

Viviparous mangrove plants, endosperm of, Rec. V, 818.

Vivisection in the District of Columbia, Rec. IX, 195.

Voandzea subterranea, notes, Rec. VI, 35.

Volatile—

- fatty acids—
 - determination, Rec. IV, 663, 664; V, 922; VI, 271; VII, 17, 186, 273, 460; VIII, 199; IX, 722; X, 515.
 - determination, Duclaux's method, Rec. VII, 460.
 - of butter. (*See* BUTTER.)
- oil residues, Rec. V, 130.
- oil residues, digestibility, Rec. VI, 12.
- oils—
 - determination, Rec. V, 251.
 - determination in spices, Rec. XII, 516.
 - solvents, continuous extractors, Rec. XI, 511.
- Volatilization of salts during evaporation, Rec. VII, 459.
- Volcanic eruptions in Hawaii, Rec. XI, 620.
- Vole, field, notes, Rec. V, 740.
- Volemit—
 - a new heptit, Rec. VII, 364.
 - new sugar, Rec. VII, 914.

- Voles—
and lemmings, Rec. VIII, 961.
notes, Rec. XII, 422.
- Volta, memorial to, Rec. X, 419.
- Volumenometer for soil samples, Rec. IV, 782.
- Volumetric—
analysis, Rec. VI, 377; VII, 652.
and colorimetric analysis, Rec. VI, 691.
determination of—
alkaloids, Rec. VIII, 667.
lead, Rec. VII, 745.
- Volutella ciliata*, conidia formation, Rec. XI, 516.
- Voyage of La Pérouse, notes, Rec. X, 1018.
- Vraic, knobbed, analyses, Rec. VI, 630.
- Vrillea expansa*, notes, Rec. III, 812.
- Vulpes delectrix*, n. sp., notes, Rec. IX, 1030.
- Vyatka, Russia, Experiment Station, report, Rec. X, 898.
- Wageningen, Netherlands, Experiment Station, Rec. V, 670.
- Wages—
in Ontario, Rec. VI, 217.
Wyoming, Rec. IV, 956.
of farm labor—
in Denmark, Rec. V, 657.
the United States, Rec. III, 906.
- Wagner's solution as a fertilizer for potted plants, Rec. IX, 648.
- Wagon—
rack for hauling silage corn, Rec. IV, 153.
roads with steel tracks, Rec. XI, 197, 498.
tires, effect on draft, Rec. IX, 997; X, 98.
- Wagons—
broad v. narrow tired—
draft, Rec. XI, 96, 1094.
tests, Rec. XII, 196.
dynamometer, tests, Rec. II, 515; X, 195.
- Wahima cattle of central Africa, Rec. VI, 242.
- Wahoo. (See WINGED ELM.)
- Walking—
leaves, notes, Rec. VI, 152.
stick, notes, Rec. XI, 955.
- Wall papers, poisonous properties, Rec. IX, 115.
- Wallflower—
destruction by iron sulphate, Rec. XII, 351.
western, Rec. IV, 699.
- Walnut—
bacteriosis, Rec. VIII, 412.
bacteriosis—
notes, Rec. XII, 859.
treatment, Rec. XI, 261.
black—
forms, Rec. XII, 957.
grafting, Rec. XI, 1049.
notes, Rec. I, 4, 315; II, 663, 741; III, 521;
IV, 654; VIII, 230; XI, 549; XII, 153.
oil, Rec. VI, 614.
varieties, Rec. II, 295.
caterpillar, notes, Rec. II, 116; III, 54, 176;
V, 101.
industry in California, Rec. IX, 451.
leaf blight, notes, Rec. XI, 552.
leaf spot, Rec. X, 970.
moth, royal, notes, Rec. V, 498.
oleaginous reserve material, Rec. IX, 329.
reserve material of the, Rec. IX, 329.
- Walnut—Continued.
scale—
English, Rec. X, 160, 164; XII, 469.
notes, Rec. VI, 235; VII, 514; IX, 663; XI, 958.
on pear, Rec. VI, 440.
spanworm—
natural enemies, Rec. V, 100.
notes, Rec. V, 100; VI, 312; IX, 669.
- trees—
at Illinois Station, Rec. V, 303.
cultivation, Rec. VI, 730.
for ornamental planting, Rec. VII, 868.
hybrids, notes, Rec. VI, 427.
notes, Rec. II, 512, 663.
rate of growth, Rec. IV, 45.
wood, ash analyses, Rec. X, 232.
- Walnuts—
California, analyses, Rec. VIII, 787; X, 255.
Carpocapsa pomonella in, Rec. VIII, 148.
culture, Rec. VIII, 230; X, 644; XI, 453.
culture in—
California, Rec. IX, 140; XII, 649.
France, Rec. VII, 506.
English—
culture in Europe, Rec. XI, 453.
grafting, Rec. XI, 1049.
notes, Rec. XI, 1049.
varieties, Rec. VII, 215.
Japan, varieties, Rec. VII, 215.
lepidopterous larvæ in, Rec. VII, 699.
notes, Rec. IV, 829; V, 587, 884; IX, 353; X, 49, 254; XII, 237, 945.
varieties, Rec. II, 295, 356; IV, 556; V, 190;
VI, 820; VIII, 230; XI, 549.
- "Ward's Seed Manure" for stinking smut of wheat, Rec. III, 286.
- Warehouse pests, notes, Rec. V, 1085.
- Waring, George E., jr., biographical sketch, Rec. X, 499.
- Warm waves, notes on, Rec. IV, 429.
- Warts, contagious origin, Rec. XI, 190.
- Wash bottle—
for gases, Rec. IX, 724.
microscopists, Rec. X, 321.
new, Rec. IX, 116.
- Washing fluid, analyses, Rec. XI, 314.
- Washington Agricultural College, establishment, Rec. IV, 370.
- Washingtonia filamentosa*, salt and sugar content, Rec. VII, 749.
- Wasp—
digger—
as an enemy of the codling moth, Rec. XII, 267.
notes, Rec. III, 811.
parasite, Rec. X, 570.
solitary, notes, Rec. X, 1065.
- Wasps—
anatomical studies, Rec. XI, 765.
and bees, Rec. IX, 370.
as enemies of the bud moth, Rec. IV, 932.
destruction, Rec. V, 348.
gall, new species, Rec. IX, 966.
leaf, Rec. IX, 966.
muscles of, Rec. VII, 517.
notes, Rec. VIII, 808.

Wasps—Continued.

- paper, *Rec. IX*, 63.
- paper-making, use of grape bags by, *Rec. III*, 547.
- reproduction of, *Rec. V*, 732.
- trapping, *Rec. VI*, 316.
- tropical, nests, *Rec. VI*, 151.

Waste—

- lime, analyses, *Rec. VII*, 294.
- products—
 - analyses, *Bul. 2, I*, 37.
 - of cities, utilization, *Rec. VII*, 756.

Water—

- absorption—
 - and rejection by seeds, *Rec. VIII*, 743.
 - by dead roots, *Rec. V*, 1028.
 - decorticated stems, *Rec. XII*, 720.
 - gluten of different wheats, *Rec. VIII*, 514; *IX*, 480.
 - roots, *Rec. VI*, 195.
 - action on—
 - lead pipes, *Rec. III*, 432.
 - dicalcic phosphate, *Rec. V*, 1029.
 - alkali, *Rec. XI*, 813; *XII*, 320.
 - amount of, in irrigation. (*See IRRIGATION, DUTY OF WATER.*)
 - analyses, *Bul. 2, I*, 22, 33, 64, 90, 190; *Rec. I*, 191, 197, 221; *II*, 5, 13, 275, 315, 375, 581, 666, 744; *III*, 246, 444, 471, 590, 890; *IV*, 242, 464, 643; *V*, 162, 217, 286, 345, 474, 567, 775, 857, 1025; *VI*, 283, 394, 793, 881; *VII*, 290, 380, 475, 745, 848; *VIII*, 286, 298, 385, 482, 561, 574, 679; *IX*, 233, 919; *X*, 31, 129, 228, 229, 235, 315, 716, 919, 920; *XI*, 213, 223, 313, 314, 327, 328, 434, 525, 826, 1022, 1036; *XII*, 222, 426, 526, 622, 823, 834, 836, 907, 926, 1019.
 - analyses—
 - notes, *Rec. VI*, 273.
 - report, *Rec. III*, 831.
 - text-book, *Rec. VI*, 189.
 - analysis—
 - cost of, *Rec. V*, 562.
 - indol as a reagent for nitrites in, *Rec. V*, 1027.
 - interpretation of results, *Rec. V*, 728, 1002, 1097.
 - methods, *Rec. IV*, 222, 782; *V*, 127; *VII*, 89, 273; *X*, 608; *XI*, 312, 510; *XII*, 907, 1107.
 - practical guide, *Rec. X*, 716.
 - sodium peroxid in, *Rec. V*, 344.
 - and air—
 - in the soil, tension, *Rec. VIII*, 679.
 - of Paris, microbes in, *Rec. IX*, 94.
 - and animal diseases, *Rec. XI*, 397.
 - borax as adulterants of coffee, *Rec. XII*, 612.
 - carbon anhydrid, elimination from skin, *Rec. IX*, 95.
 - carbonic acid, exhalation from the skin, *Rec. IV*, 986.
 - free acids in sulphate of ammonia, *Rec. VII*, 462.
 - milk sterilizer, *Rec. V*, 897.
 - public health, *Rec. IX*, 335.
 - soil temperature, *Rec. VIII*, 36.
- apparatus for—
- collecting samples, *Rec. VII*, 486.
 - distilling, *Rec. XI*, 313; *XII*, 222.

Water—Continued.

- apparatus for—continued.
 - examination, *Rec. VI*, 15, 395; *VII*, 376.
 - preventing backward flow, *Rec. XI*, 619.
- application to crops, *Rec. XII*, 295.
- application to crops, proper time, *Rec. VIII*, 351.
- artesian—
 - analyses, *Rec. IV*, 120, 244; *VIII*, 965; *IX*, 1098.
 - of New South Wales, *Rec. VIII*, 114.
 - Queensland, *Rec. VII*, 290.
 - South Dakota, *Rec. VII*, 287; *VIII*, 298.
 - the Dakotas, *Rec. X*, 130.
 - spectroscopic examination, *Rec. IX*, 323.
 - supply, *Rec. VIII*, 385.
- ascent in trees, *Rec. VIII*, 380.
- atmospheric, analyses, *Rec. VII*, 848.
- attraction by iodine, *Rec. IV*, 221.
- avens, digestibility, *Rec. X*, 1082.
- bacteria content, *Rec. VII*, 19; *IX*, 229.
- bacteriological examination, *Rec. IV*, 985; *V*, 435, 819, 1098; *VI*, 283, 395; *VII*, 23, 99, 376, 570; *VIII*, 298, 748; *IX*, 392, 428, 924; *XI*, 434, 924.
- bacteriology of, *Rec. IV*, 517.
- bath—
 - constant level, *Rec. VI*, 776.
 - constant level and temperature, *Rec. VI*, 504.
 - regulator, *Rec. XII*, 309.
- baths for bacteriological laboratory, *Rec. X*, 322.
- beetle, notes, *Rec. IV*, 372.
- behavior of soils toward, *Rec. VI*, 23, 853.
- bench for greenhouses, *Rec. IV*, 413.
- blast lamp, low pressure, *Rec. XI*, 420.
- bug—
 - eggs, *Rec. I*, 292.
 - Hydrobatid, new species, *Rec. III*, 548.
 - lesser, notes, *Rec. I*, 292.
 - undetermined species, *Rec. IV*, 83.
- carried off by drainage, *Rec. VIII*, 351.
- chemical—
 - and bacteriological examination, *Rec. X*, 520, 821, 920.
 - examination, *Rec. VII*, 23, 570.
- cold v. warm for—
 - cows. (*See COWS, WATERING.*)
 - greenhouse plants, *Rec. X*, 755.
 - plants, *Rec. XI*, 296, 540.
- collection and storage, *Rec. VII*, 481.
- combination with argon, *Rec. VIII*, 105.
- composition, *Rec. VIII*, 114.
- composition, effect on splenic fever bacilli, *Rec. X*, 596.
- condensation of vapor by the soil, *Rec. XII*, 526.
- conservation—
 - as affected by forests, *Rec. XI*, 718.
 - in soils, *Rec. XI*, 916.
- consumption—
 - by plants as affected by potash salts, *Rec. VIII*, 765.
 - rice plants, *Rec. X*, 1038.
- effect on excretion through the lungs, *Rec. X*, 481.

Water—Continued.

- containing nickel, effect on vegetation, Rec. V, 539.
- contaminated, analysis, Rec. V, 650, 1027.
- content of fruit trees, Rec. X, 757.
- courses—
 - as industrial aids, Rec. X, 697.
 - prediction of floods, Rec. V, 1087.
- crass—
 - culture, Rec. VII, 401, 959; IX, 951.
 - notes, Rec. X, 962.
- current in cucumber plants, Rec. VII, 925.
- currents, effect on assimilation of aquatic plants, Rec. VIII, 290.
- detection—
 - and determination of nitrites, Rec. XI, 419; XII, 18, 21.
 - of nitrous acid, Rec. XII, 21.
- determination—
 - in air-dried fodders, Rec. I, 135.
 - butter, Rec. IV, 95.
 - butter and margarine, Rec. X, 514.
 - cereals, Rec. XII, 21.
 - feeding stuffs, Rec. I, 135; V, 458.
 - milk, Rec. X, 413, 607, 1093; XI, 213.
 - peat, Rec. XII, 907.
 - raw sugar, Rec. VI, 868; VII, 273.
 - silicates, Rec. VII, 270.
 - sirups, Rec. XI, 905.
 - sirups and massecuite, Rec. V, 433.
 - soap, Rec. IV, 314.
 - soils, Rec. VI, 119.
 - sugars, Rec. IV, 222, 388.
 - sulphate of ammonia, Rec. VII, 294.
- of ammonia, Rec. XI, 112, 312.
- acidity, Rec. XI, 312.
- carbonic acid, Rec. VI, 273; IX, 620.
- character by color, Rec. XI, 111.
- chlorin, Rec. V, 255.
- dry matter, Rec. VIII, 105; IX, 620.
- hardness, Rec. IV, 387, 612; X, 16; XII, 1007.
- mineral matter, Rec. X, 16.
- nitrates and nitrites, Rec. III, 109; V, 1027; VI, 15, 189; VII, 463, 744; VIII, 37; X, 514, 1005; XI, 112; XII, 18, 21.
- nitric acid, Rec. IX, 522, 723; XI, 312, 705; XII, 308, 418.
- organic matter, Rec. IX, 537; X, 717.
- oxidizable substances, Rec. XII, 716.
- oxygen, Rec. VII, 921; VIII, 377; IX, 26; XI, 213, 312.
- phosphoric acid, Rec. VIII, 560; X, 16.
- silicic acid, Rec. X, 118.
- total and permanent hardness, Rec. XII, 611.
- turbidity, Rec. XI, 312; XII, 526.
- turbidity, silica standards for, Rec. XI, 813.
- dissolved oxygen, Rec. IX, 1023.
- distilled—
 - as a beverage, Rec. XI, 970.
 - effect on plant roots, Rec. XI, 321.
 - germ free, Rec. III, 748.
 - slimy liquid, Rec. VI, 614.
- drainage. (See DRAINAGE WATER.)

Water—Continued.

- drinking—
 - analyses, Bul. 2, I, 173; Rec. VIII, 37, 966; IX, 335, 821.
 - bacteria, Rec. VI, 694.
 - contamination, Rec. IX, 433.
 - detection of lead, Rec. VIII, 202; XII, 906.
 - detection of urine in, Rec. V, 255.
 - fecal contamination, Rec. VI, 394.
 - fecal pollution, detection, Rec. V, 1027.
 - microscopy, Rec. X, 821.
 - nitrites in, Rec. VIII, 37.
 - nitrites in, estimation, Rec. III, 109.
 - purification, Rec. VII, 376; X, 424.
 - sterilizing, Rec. V, 435.
 - valuation of color, Rec. VIII, 286.
 - Winkler method for determination of oxygen in, Rec. VIII, 377.
- duty of. (See IRRIGATION, DUTY OF WATER.)
- economic distribution, Rec. VIII, 176.
- effect on—
 - butter, Rec. V, 1053.
 - composition of potatoes, Rec. XII, 938.
 - excretion of nitrogen from the body, Rec. IV, 784.
 - germination of rice seed, Rec. X, 1006.
 - germination of seeds, Rec. X, 259, 760.
 - life of larvæ, Rec. IX, 965.
 - loss of heat from body, Rec. IX, 1080.
 - structure of plants, Rec. XI, 515.
 - vitality of seeds, Rec. X, 759.
- evaporation, Rec. IX, 1040, 1096.
- evaporation from long columns of soil, Rec. XII, 35.
- examination, Rec. V, 1027; VI, 189, 190; VII, 23; X, 315; XII, 39, 319, 622.
- examination—
 - for typhoid bacillus, Rec. VIII, 473.
 - methods, Rec. XI, 482.
 - nitric acid reaction, Rec. XI, 811.
 - with centrifuge, Rec. IV, 289.
- filter residue, analyses, Rec. VI, 522; VII, 294.
- filtration, Rec. VII, 23, 290; VIII, 482.
- flow as affected by—
 - forests, Rec. IX, 843, 953; XII, 651.
 - plant covers, Rec. XII, 696, 1096.
 - vegetation, Rec. XII, 797.
- flow through—
 - rigid porous media, Rec. XI, 518.
 - sand grains of different diameters, Rec. XI, 525.
- fluctuation of height in unused well, Rec. II, 599.
- for cheese-making, eudiometric test, Rec. V, 824, 928.
- chemical purification, analysis, Rec. X, 1005.
- creameries, filtration, Rec. IV, 317.
- for destroying—
 - cankerworms, Rec. V, 822.
 - plant lice, Rec. VI, 651.
- for greenhouse plants, temperature, Rec. X, 755, 756, 758.
- orchards, conservation, Rec. VI, 170.
- pumping, Rec. VII, 258.
- retting flax, analyses, Rec. XI, 812.
- stock, Rec. XII, 193.

Water—Continued.

- forestry, and agricultural production, **Rec. VI**, 730.
 - free—
 - from ammonia, preparation, **Rec. VIII**, 99.
 - in swollen seeds, **Rec. V**, 1027.
 - from lead pipes, **Rec. V**, 255, 519.
 - wells near churchyards, analyses, **Rec. V**, 1098.
 - function in metabolism, **Rec. XI**, 184.
 - garden, **Rec. X**, 758.
 - grass—
 - analyses, **Rec. VI**, 1023.
 - notes, **Rec. II**, 658; **IV**, 248; **VI**, 97; **X**, 343.
 - height in wells as affected by rainfall, **Bul. 2**, **I**, 152.
 - hemlock—
 - notes, **Rec. IX**, 527; **XI**, 516.
 - poisoning, **Rec. XII**, 791.
 - poisoning of stock, **Rec. XII**, 891.
 - poisoning, treatment, **Rec. XI**, 287.
 - hot—
 - as an insecticide, **Rec. V**, 593.
 - effect on germination of grains, **Rec. V**, 304.
 - for celery caterpillars, **Rec. V**, 686.
 - corn smut, **Rec. V**, 59, 61.
 - oat smut. (*See* OAT SMUT, HOT-WATER TREATMENT.)
 - rose chafer, **Rec. III**, 171, 291; **V**, 686.
 - wheat smut. (*See* WHEAT SMUT, HOT-WATER TREATMENT.)
 - hyacinth in Florida, **Rec. VIII**, 704; **IX**, 328.
 - hygienic examination, **Rec. VII**, 848.
 - importance of right amount and distribution in crop production, **Rec. XI**, 537.
 - in arable soil after prolonged drought, **Rec. V**, 650.
 - butter, proportion, **Rec. V**, 952.
 - capillary tubes, surface tension, **Rec. X**, 730.
 - collids, **Rec. VIII**, 667.
 - economic feeding of horses, **Rec. VIII**, 157.
 - large quantities, effect on excretion of nitrogen, **Rec. XI**, 778.
 - Lower Michigan, mineral, **Rec. XII**, 622.
 - manure, **Rec. V**, 152.
 - manure leachings, **Rec. V**, 153.
 - milk of different breeds, **Rec. V**, 945.
 - plant production, **Rec. VII**, 467, 753.
 - plants, physiological rôle, **Rec. VII**, 366; **VIII**, 3.
 - reservoirs, loss by seepage and evaporation, **Rec. X**, 597.
 - soil. (*See* SOIL.)
 - the Sahara, **Rec. XI**, 223.
 - wheat and oat straw, **Rec. V**, 145.
- iron content, **Rec. XI**, 23.
- irrigation. (*See* IRRIGATION.)
- lake—
 - analyses, **Rec. IV**, 120.
 - temperature, **Rec. X**, 325.
- level fluctuations, **Rec. XII**, 694.
- lifting by compressed air, **Rec. XII**, 696.
- lifts, tests, **Rec. VIII**, 351; **IX**, 597; **XI**, 197.
- lilies, culture, **Rec. VIII**, 986.

Water—Continued.

- lily—
 - blight, treatment, **Rec. IX**, 657.
 - leaf hopper, **Rec. X**, 168.
 - pond, **Rec. XII**, 954.
- meadow grass, culture experiments, **Rec. VI**, 531.
- measurements in Wyoming, **Rec. XII**, 295.
- meteoric, nitrogen compounds in, **Rec. V**, 522.
- methods of raising, **Rec. XII**, 694.
- micro-organisms, **Rec. V**, 435; **VI**, 283.
- micro-organisms, period of incubation in nutritive gelatin, **Rec. VI**, 18.
- microscopic examination, new slides for, **Rec. IX**, 313.
- microscopical examination, **Rec. VII**, 662; **IX**, 918; **X**, 515; **XI**, 133.
- mineral—
 - analyses, **Bul. 2**, **I**, 173, 187; **Bul. 2**, **II**, 38; **Rec. II**, 70; **III**, 412; **IV**, 787; **VII**, 376, 835; **VIII**, 377, 482, 574; **IX**, 1024; **X**, 194, 716; **XI**, 314; **XII**, 526.
- determination of carbon dioxid in, **Rec. VI**, 273.
- influence on metabolism of men, **Rec. VIII**, 521.
- preservation and study, **Rec. III**, 927.
- molecular constitution, **Rec. XII**, 926.
- motor, Harvey, **Rec. VI**, 346.
- movement in—
 - plants, **Rec. VIII**, 471; **IX**, 624.
 - soil. (*See* SOILS.)
 - trees, **Rec. X**, 613.
- natural colors, **Rec. VII**, 463, 653.
- new species of Spirillum in, **Rec. IV**, 693.
- of Durance, analyses, **Rec. IV**, 449.
 - Lake Champlain, analyses, **Rec. VI**, 881.
- moor soils, studies, **Rec. X**, 1031.
- moors, determination of acidity, **Rec. XI**, 312.
- the Rio Grande, value for irrigation, **Rec. V**, 1002; **XII**, 834.
- on the joints in cattle, **Rec. XI**, 289.
- organic matter in, **Rec. VIII**, 105, 286.
- oxygen content as affected by electricity, **Rec. XI**, 133.
- pathogenic bacteria, **Rec. IX**, 627.
- pepper, notes, **Rec. III**, 308.
- percolation—
 - in long columns of sand, **Rec. X**, 727.
 - through long columns of soil, **Rec. VIII**, 297; **XII**, 34.
- pipes—
 - composition of deposits in, **Rec. VIII**, 208.
 - lead, **Rec. V**, 436, 519.
- plant at Iowa State College, **Rec. X**, 229.
- pollution, **Rec. IX**, 433; **XII**, 694.
- pores, so-called, **Rec. VII**, 19.
- potable— (*See* WATER, DRINKING.)
- pumping for irrigation in Rio Grande Valley, **Rec. XII**, 835.
- pure, **Rec. X**, 197.
- purification, **Rec. VI**, 978; **VII**, 376; **VIII**, 966; **IX**, 433; **X**, 424; **XII**, 319, 835.

Water—Continued.

purification—

- electrical, Rec. VI, 196.
- in Massachusetts, Rec. XII, 835.
- rapid process for, Rec. XI, 526.

purslane, notes, Rec. X, 343.

rain—

- ammonia in, Rec. II, 341; III, 82.
- analyses, Rec. III, 362.
- chlorin content, Rec. IV, 522; V, 804; VII, 486; VIII, 964; IX, 335, 738; XII, 833.
- composition, Rec. VI, 196.
- for pigs, Rec. II, 427.
- nitrates in, Rec. III, 82.
- nitric acid in, Rec. II, 341.
- nitrogen in, determination, Rec. VI, 283, 513; VIII, 482; X, 315; XII, 917.
- of Java, nitrogen content, Rec. V, 539.

rate of—

- evaporation, Bul. 2, I, 34.
- percolation as related to irrigation, Rec. VIII, 295.

regulations for use, Rec. XI, 195.

relation to malarial fever, Rec. XII, 663.

required—

- by crops, Rec. V, 484.
- for one pound of barley, Rec. IV, 126; V, 484.
- one pound of corn, Rec. IV, 126; V, 484.
- one pound of oats, Rec. IV, 126; V, 484.
- per pound of dry matter, Rec. VII, 567; VIII, 293.

requirements of—

- carnations, Rec. IX, 952.
- cereals, Rec. X, 635.
- crops, Rec. X, 746, 748; XII, 1095.

resources of—

- Illinois, Rec. X, 130.
- Indiana, Rec. XI, 1094.
- Nebraska, Rec. XII, 694.
- New York, Rec. XI, 1094.
- Porto Rico, Rec. XII, 795.
- the Lower Peninsula of Michigan, Rec. XII, 694.

right—

- litigation, prevention, Rec. XI, 798.
- problems of Bear River, Rec. XI, 798.
- problems of the Bighorn Mountains, Rec. XI, 1094.

rights, Rec. XII, 696.

rights—

- in Russia, Rec. XI, 294.
- of the Missouri watershed, Rec. XI, 95.

river—

- analysis, Rec. III, 444; IV, 120; V, 32.
- for irrigation, Rec. V, 32.

rôle in—

- cultivated soil, Rec. V, 1098.
- plant growth, Rec. X, 121.

sampling, Rec. III, 444; IV, 950.

secreting organs of plants, anatomy, and physiology, Rec. X, 1013; XI, 424.

seepage—

- and underflow of rivers, Rec. VII, 163.
- escaping into larger channels, Rec. XI, 517.
- from canals, Rec. X, 795.

Water—Continued.

seepage—continued.

- in northern Utah, Rec. IX, 798.
- irrigation, Rec. VII, 898.
- rate of flow, Rec. II, 395.
- return of, Rec. IV, 368.
- studies, Rec. XI, 394.

sewage— (See also SEWAGE.)

- analyses, Rec. III, 530.
- for meadows, Rec. VIII, 40.
- of Paris, purification of by iron sulphate, Rec. V, 436.

softening for domestic use, Rec. XII, 319.

soluble—

- carbohydrates of malt, Rec. V, 1102.
- phosphoric acid, Rec. VI, 367, 369, 609, 626; V, 466, 520.
- substances in plants, Rec. VII, 187.

spring—

- analyses, Rec. IV, 244; IX, 1098; X, 228; XI, 328.
- studies, Rec. VIII, 385.

State and national control, Rec. XI, 597.

sterilization, Rec. V, 435, 897, 1028, 1051; VI, 196.

sterilization by—

- heat, Rec. XI, 826.
- ozone, Rec. XI, 133, 328, 718; XII, 926.

sterilizer, new, Rec. V, 897.

sterilizing apparatus, Rec. V, 345; VI, 504.

storage—

- for agricultural purposes, Rec. VI, 170.
- in California, Rec. XI, 597.
- on Gila River, Rec. XII, 896.

subterranean, Rec. XII, 1023.

subterranean, as affected by forests, Rec. IX, 1041.

suction and blast pump, Rec. VII, 273.

supply, Rec. VIII, 175; XI, 394.

supply—

- agricultural, of Texas, Rec. X, 126.
- and forest reservation, Rec. VII, 870.
- as affected by forests, Rec. V, 95; XI, 127, 718, 940, 1050.
- a source of typhoid fever, Rec. VIII, 385.
- depending on snowfall, Rec. XII, 1015.
- engineering manual, Rec. XI, 798.
- for live stock, Rec. III, 219.
- for towns and cities in Nebraska, Rec. XII, 694.
- from a sanitary standpoint, Rec. VII, 938.
- artesian wells, Rec. VIII, 385.
- of Basel, examination, Rec. VI, 197.
- Berlin, examination, Rec. VI, 197.
- Cache Valley, Utah, Rec. IX, 427.
- cities and towns in Massachusetts, Rec. XII, 835.
- cities and towns, purification, Rec. VIII, 385.
- farms, Rec. X, 730.
- London, Rec. V, 345; VII, 663.
- North Louisiana, Rec. V, 282.
- public lands, Rec. VIII, 37.
- Porto Rico, Rec. XII, 397.
- Queensland, report, Rec. X, 897.
- Rocky Mountains, Rec. XI, 912.

Water—Continued.

supply—continued.

- of Russia, preservation, Rec. X, 897.
- southeastern South Dakota, Rec. XII, 897.
- the arid region, Rec. XII, 696.
- relation to animal diseases, Rec. X, 693.
- statistics, Rec. XII, 836.

surface—

- and seepage, Rec. XII, 694.
- available for irrigation in Nebraska, Rec. XII, 694.
- evaporation, Rec. XI, 323; XII, 833.

table—

- fluctuations in level of, Rec. II, 433.
- position and altitude of, Rec. II, 433.

tank, sterile, Rec. XI, 714.

transfer in plants, Rec. IX, 330.

transportation in plants as affected by carbon dioxid, Rec. XII, 519.

treatise, Rec. XII, 319, 676.

underground—

- action, Rec. XII, 694.
- as affected by forests, Rec. XI, 826.
- in eastern Colorado, Rec. X, 129.
- Nebraska, Rec. XI, 31.
- southwestern Kansas, Rec. IX, 896.
- notes, Rec. XI, 819.
- pumps for raising, Rec. XII, 1096.
- temperature, Rec. XII, 918.

use in—

- agriculture, Rec. XII, 898.
- irrigation, Rec. XII, 895.
- plant and animal injuries, Rec. IX, 149.

vapor—

- effect on atmospheric absorption, Rec. XII, 833.
- excretion through the lungs as affected by exercise, Rec. X, 481.
- pressure for, Rec. XI, 819.

variation of ammonia in, Rec. VII, 290.

vegetable growths in, Rec. V, 255.

v. skim milk in bread making, Rec. V, 654; XI, 960.

warmed v. cold for cows. (See Cows, WATER-ING.)

waste, of sugar-beet factories, analyses, Rec. X, 235.

weevil, rice, notes, Rec. IV, 848.

well. (See WELL WATER.)

wheel, American type, Rec. XI, 395.

wheels, description, Rec. XII, 1096.

yam, notes, Rec. VI, 220.

Watering—

- plants, Rec. X, 553, 641; XI, 50.
- potted plants, Rec. VIII, 55.
- surface v. subsoil, Rec. XII, 325.

Watermelon—

- anthracnose—
 - notes, Rec. VIII, 991.
 - treatment, Rec. V, 787; VI, 910.
- as a host of tomato blight, Rec. V, 790.
- decay, Rec. V, 401.
- disease of the South, Rec. VI, 487.
- diseases, notes, Rec. XI, 357.
- wilt disease, Rec. XI, 944.

Watermelons—

- analyses, Rec. IV, 59; VIII, 54, 597.
- ash analysis, Rec. VIII, 308.
- crossing, Rec. V, 982; XI, 928.
- culture, Rec. IX, 357; X, 149.
- culture experiments, Rec. VI, 507; VII, 120; VIII, 313, 407; XII, 1043.
- fertilizer experiments, Rec. X, 150, 548.
- fertilizers for, Rec. VI, 401.
- herbaceous grafting, Rec. II, 508.
- irrigation experiments, Rec. XII, 842.
- notes, Rec. X, 254, 547; XI, 1047.
- varieties, Bul. 2, II, 88; Rec. I, 254; II, 149, 314, 395, 515, 566, 641; III, 30, 85, 386, 724; IV, 352; V, 189, 300, 496, 983; VI, 142, 988; VII, 125, 129, 213; VIII, 791, 889, 977; X, 150, 639; XI, 251; XII, 552, 1043.

Watershed of Lake Minnetonka, hydrology, Rec. XI, 221.

Waterspout—

- at San Diego, Rec. X, 1018.
- cloudburst, or tornado, Rec. IX, 424.
- of September 29, 1898, Rec. X, 1018.

Waterspouts, Rec. X, 124, 326; XII, 119.

Waterspouts—

- at Key West, Fla., Rec. XI, 620.
- on the Lakes, Rec. X, 419.
- theory, Rec. IV, 871.

Wattle—

- barks for tanning, Rec. XII, 995.
- black—
 - profitableness of culture, Rec. III, 595.
 - tannin in, Rec. III, 595.

stinking—

- analyses, Rec. IX, 841.
- ash, analyses, Rec. X, 20.

Waved lagoon, notes, Rec. IV, 838.

Wax—

- cane, investigations, Rec. VI, 274.
- determination of glycerin, Rec. X, 315.
- for grafting, abandonment, Rec. V, 1017.
- Hübl method for examining, Rec. IV, 516.
- moths, notes, Rec. VI, 315; XI, 266.
- secreted by Lepidoptera, Rec. VII, 596.
- secretion by bees, Rec. V, 102.
- stopping stomata, Rec. XI, 116.
- substances of fruits, studies, Rec. VI, 615.
- vegetable, digestibility, Rec. IV, 599.

Waxes—

- analyses, Rec. VII, 257; IX, 419.
- apparatus for determining melting point, Rec. XI, 419.
- determination of—
 - melting point, Rec. XI, 312.
 - value, Rec. X, 920.
- of American grapes, Rec. VI, 615.

Waxy substances, determination in peat, Rec. XII, 907.

Weasels—

- notes, Rec. VI, 695; XI, 426.
- of North America, Rec. VIII, 960.

Weather—

- and agriculture, Rec. XII, 1018.
- birds, Rec. VII, 474.
- conduct, Rec. XI, 620.
- crop review of Minnesota, Rec. VII, 189.

Weather—Continued.

and crop service of—

Illinois, Rec. VI, 879.

Iowa, Rec. V, 445; VII, 22; XI, 819.

New Mexico, Rec. VII, 22.

and live-stock industry, Rec. XII, 25.

storms of Malta, Rec. X, 1018.

sugar crop, Rec. X, 419.

sun spots, Rec. VII, 474; X, 1020.

the dairy, Rec. XI, 620, 819.

the moon, Rec. IV, 803; X, 1018.

the newspapers, Rec. XII, 1016, 1018.

as topic of conversation, Rec. XI, 127.

at Long Branch, Rec. VII, 474.

bulletins, Rec. VI, 19, 507, 509, 511, 573, 618, 639, 695, 874.

Bureau—

and commerce on Great Lakes, Rec. XII, 118.

ice business, Rec. XI, 222.

the farmer, Rec. XI, 397.

universities, Rec. XII, 521.

at the Paris Exposition, Rec. XII, 1015.

benefits to western Nebraska, Rec. XI, 127.

compensation of persons while learning station duties, Rec. XI, 127.

duties and qualifications, Rec. XI, 128.

forecasts, Rec. VII, 845.

in Alaska, Rec. XI, 222.

West Indies, Rec. XII, 521.

international cloud work, Rec. XI, 620.

men as instructors, Rec. XII, 831.

men as university lecturers, Rec. XI, 430, 620, 621.

observers, instructions for, Rec. X, 1020.

observers, manual, Rec. X, 327.

of Italy, Rec. IV, 240.

Japan, Rec. XII, 831.

New York, report, Rec. XI, 430.

office in New York City, removal, Rec. X, 1018.

officials, conventions at Omaha, Rec. X, 325, 419; XI, 126, 621.

practical, Rec. X, 1018.

predictions, Rec. III, 433.

promotion of relations, Rec. XI, 126.

publications for school use, Rec. XII, 1016.

records, legal value, Rec. XII, 119.

relation to Department of Agriculture, Rec. XI, 126.

relation to public, Rec. XI, 126.

relation to science and industry, Rec. VII, 287.

relation to universities and colleges, Rec. X, 1018.

reorganization, Rec. III, 329.

report, Rec. III, 329, 486; VII, 844.

river and flood service, Rec. VIII, 33; IX, 817.

service in Alaska, Rec. X, 326.

service in Haiti, Rec. XII, 521.

station at Mount Tamalpais, Rec. IX, 814.

station on Turks Island, Rec. XII, 831.

stations as stations of instruction, Rec. XI, 127.

Weather—Continued.

Bureau—Continued.

transfer, Rec. III, 329, 365, 549, 817, 894.

work, extension, Rec. XII, 521.

work, importance of static electricity, Rec. VIII, 111.

cablegrams from Azores, Rec. XII, 521.

changes as affecting growth of tomatoes, Rec. II, 350.

charts, monthly, for West Indies, Rec. XI, 222.

cold, blessings, Rec. XI, 222.

conditions in Iowa in 1893, Rec. V, 736.

correlation in distant localities, Rec. XII, 1016.

correspondence between European and American, Rec. VII, 474.

effect on—

crops, Rec. IV, 578; IX, 123, 424; XI, 911.

fungi, Rec. X, 858; XI, 754; XII, 354.

insects, Rec. XII, 161.

milk production, Rec. V, 322, 972; VI, 924.

plant diseases, Rec. VI, 999; XI, 758.

quantity and quality of milk, Rec. VI, 924.

root tubercles of legumes, Rec. XII, 827.

sugar beets, Rec. IV, 985; VIII, 868, 870.

tree growth, Rec. IX, 562.

vegetation, Rec. XI, 31.

yield of cowpeas, Rec. XII, 436.

yield of wheat, Rec. III, 926.

fallacies, Rec. VII, 287.

forecast—

cards by rural delivery, Rec. XII, 521.

postal cards, Rec. XI, 127.

forecasting, Rec. V, 30, 281, 325; VIII, 34; IX, 122, 531; XI, 223.

forecasting—

for the farmer, Rec. XII, 831.

in Canada, Rec. XI, 429.

popular, Rec. XI, 620.

recent progress, Rec. XII, 425.

study, Rec. VI, 698; VII, 930.

forecasts—

and maritime interests of Great Lakes, Rec. XI, 126.

commercial importance, Rec. XII, 1016.

critical estimate, Rec. XI, 126.

distribution, Rec. III, 330; XI, 127, 216, 621, 1018.

for agriculture, Rec. VII, 474.

long periods of time, Rec. VIII, 964.

Washington, Oregon, and Idaho, Rec. XI, 620.

in Australia, Rec. VI, 620.

India, Rec. XII, 521.

Mexico, Rec. XII, 1015.

Missouri, Rec. VII, 845.

Oregon, Rec. VIII, 111; IX, 424; X, 326.

the fifteenth century, Rec. XI, 223.

the United States, Rec. VI, 621.

local and general, from cloud observations, Rec. V, 1086.

long range, Rec. VIII, 111, 475; XI, 126, 127, 429.

on letter boxes, Rec. XI, 222, 620.

people most benefited, Rec. XI, 126.

Weather—Continued.

forecasts—continued.

signaling, Rec. IV, 671.

Smithsonian, Rec. X, 326.

testing, Rec. V, 1086.

wording, Rec. XI, 126.

freaks of the West Indies, Rec. X, 327.

guide, Australian, Rec. X, 419.

handbook, Rec. XI, 621.

in August on Pacific Coast, Rec. XI, 621.

Oregon, Rec. XII, 521.

maker, Rec. XII, 119.

map—

and the public, Rec. XI, 127.

daily, countries issuing, Rec. VI, 878.

daily, development, Rec. XI, 127.

daily, for New Mexico, Rec. XI, 222.

of section reports, improvement, Rec. XI, 620.

utility, Rec. XI, 222.

maps and bulletins, Rec. V, 1086.

observations and predictions, Rec. VII, 97.

observers—

requirements, Rec. X, 1018.

suggestions to, Rec. IX, 30.

voluntary, Rec. VIII, 111; IX, 426; XI, 127.

of Manila, Rec. X, 326; XI, 30.

periodicity, Rec. XI, 516.

predictions, Rec. XI, 222.

proverbs, unreliable popular, Rec. VIII, 676.

records, old, Rec. IX, 531.

reports, publication, Rec. XII, 920.

Review and high schools, Rec. XI, 819.

service—

advances in, Rec. VIII, 111.

colonial, Rec. VI, 117.

cooperation between stations and, Rec. III, 141.

in Iowa, Rec. III, 270.

Jamaica, Rec. X, 419; XI, 429.

Maryland, Rec. XI, 819; XII, 119.

North Carolina, Rec. III, 241, 314, 411.

on Pacific coast, Rec. XI, 126.

present condition, Rec. V, 1086.

State, functions, Rec. V, 1086.

State, in Pennsylvania, Rec. VI, 879.

State, laws relating to, Rec. IV, 76.

State, statistics, Rec. VII, 474, 932.

telegraphic, Rec. XII, 920.

sign, local, Rec. XII, 521.

signals, searchlight for, Rec. X, 124.

telegraphy—

history, Rec. VII, 474; XI, 221.

in England and America, Rec. IX, 424.

trans-Atlantic, Rec. XII, 1016.

types of the North Pacific slope, Rec. VIII, 111.

v. climate, Rec. XI, 222.

injurious fungi, Rec. VI, 645.

warnings—

coloring, Rec. XI, 126.

for Atlantic and Gulf coasts, Rec. XI, 126.

stockmen 48 hours in advance, Rec. XI, 126.

transportation companies, Rec. XI, 126.

wet, effect on parasitic fungi, Rec. XI, 469.

winter and summer changes, Rec. VII, 474.

Weathering and erosion of north and south slopes, Rec. XII, 732.

Web—

disease produced by *Botrytis cinerea*, Rec. V, 1031.

spinning sawfly of plums and cherries, Rec. VIII, 802.

Webbing clothes moth, Rec. X, 655.

Websterellus tritici, notes, Rec. V, 311, 312.

Webworm—

fall—

enemies, Rec. II, 115.

notes, Bul. 2, I, 177; Rec. I, 232; II, 115, 116, 669; III, 54, 198, 298, 313, 396, 792; IV, 661, 838, 840; V, 101, 884; VI, 312, 316; VII, 126; VIII, 804, 904; X, 167; XI, 169, 272, 370; XII, 68, 468.

parasite, Rec. II, 730; III, 54.

remedies, Bul. 2, I, 30; Rec. VIII, 804, 904; XI, 169.

garden, Bul. 2, I, 31; Rec. I, 12; II, 734; VI, 315.

root, Rec. X, 458.

sod, notes, Rec. VI, 313.

sugar-beet, notes, Rec. V, 62, 100, 327.

wild-cherry, Rec. VIII, 611.

Webworms, notes, Rec. VIII, 505.

Weed—

bug, clouded, notes, Rec. VI, 150.

exterminator, Rec. XI, 812.

killing in the prairie States, Rec. II, 267.

manual, Rec. IX, 1054.

seed, ground, analyses, Rec. XI, 719.

seedlings, fungi injurious to, Rec. V, 401.

seeds—

botanical characters, Rec. III, 599.

collections, Rec. IV, 401.

description, Rec. III, 599.

distribution by winter winds, Rec. VII, 36.

germination, Bul. 2, II, 37.

in alfalfa seed, Rec. XII, 457.

clover seed, Rec. V, 191, 399; VI, 429, 430, 903; XI, 54, 1054; XII, 349, 959.

grain seed, Rec. IX, 845.

grass and clover seeds, Rec. I, 24; V, 334; XI, 54, 1054.

imported seeds, Rec. IV, 815.

wheat, Rec. XII, 248.

notes, Rec. V, 191, 911; XI, 158.

of North America, Rec. V, 667.

planting at different depths, Rec. XII, 248.

vitality, Rec. I, 282.

separator and grading machine, Rec. VIII, 635.

Weeder, test, Rec. VIII, 702.

Weeds— (See also specific kinds.)

analyses, Rec. II, 491.

and forage plants, North American, structure of seed coats, Rec. V, 667.

grasses as affected by liming, Rec. XII, 634.

weeding, notes, Rec. VI, 144.

as fertilizers, Rec. III, 629.

food plants for noxious insects, Rec. X, 556.

club root in, Rec. V, 827.

collection, Rec. II, 512.

destruction by birds, Rec. XI, 425.

distribution, Rec. X, 646; XII, 253.

Weeds—Continued.

distribution—

in the United States, *Rec. VI*, 268.

through feeding wheat bran, *Rec. V*, 823.

effect on soil moisture, *Rec. XII*, 627.

eradication, *Rec. II*, 267, 655; *IV*, 47, 167; *VI*, 301, 431; *VII*, 135, 690, 872; *VIII*, 58, 410; *IX*, 143, 453, 455, 758, 846; *X*, 556, 1049; *XI*, 812; *XII*, 350, 565, 960.

eradication by—

chemicals, *Rec. III*, 893; *XI*, 355, 1057; *XII*, 249, 253, 961, 1050.

copper sulphate, *Rec. XII*, 248.

iron sulphate, *Rec. IX*, 846; *X*, 1049; *XII*, 253, 565, 961.

metallic salts, *Rec. XII*, 1050, 1052.

salt, *Rec. XII*, 249.

sulphate of ammonia, *Rec. XII*, 249, 251, 1052.

sulphate of ammonia and superphosphate, *Rec. XII*, 249.

fungi on, *Rec. IV*, 50; *V*, 401, 827; *VI*, 823.

fungus parasites, list of, *Bul. 2, II*, 37.

in cities, *Rec. XI*, 462.

rice fields in Louisiana, *Rec. XII*, 760.

injury to crops by, *Rec. VII*, 136.

investigations, *Rec. IX*, 653.

laws relating to—

in Manitoba, *Rec. VIII*, 703.

Nebraska and Wisconsin, *Rec. V*, 787.

North Dakota, *Rec. VI*, 144.

Ohio, *Rec. VII*, 690.

Oregon, *Rec. IV*, 47; *VI*, 822.

South Dakota and Wisconsin, *Rec. VII*, 37.

Wisconsin, *Rec. I*, 323; *XI*, 749.

legislation regarding, *Rec. VII*, 779; *VIII*, 507.

migration, *Rec. VII*, 750; *IX*, 564.

notes, *Rec. II*, 745; *III*, 82, 217, 308, 598, 615; *IV*, 334, 591; *V*, 62, 101, 161, 398, 401, 790; *IX*, 450; *X*, 360, 824; *XI*, 498, 909, 1057; *XII*, 252, 253, 312, 419, 911.

number of seeds produced, *Rec. X*, 647.

of Alabama, *Bul. 2, I*, 22.

alpine meadows and pastures, *Rec. XI*, 1055.

California, *Rec. X*, 223.

Canada, *Rec. V*, 529, 628; *IX*, 454.

Colorado, *Rec. II*, 392; *V*, 306.

cornfields, *Rec. X*, 1048.

Florida—

analyses, *Rec. II*, 491.

forage value, *Bul. 2, I*, 64.

list of, *Rec. II*, 13.

of Germany, *Rec. IX*, 454.

Idaho, *Rec. X*, 760.

Iowa, notes, *Rec. XI*, 651, 1099.

Kansas, *Rec. VII*, 407, 589; *VIII*, 409; *IX*, 759.

Massachusetts, *Rec. X*, 54, 647.

Nevada, *Rec. V*, 497; *XI*, 158.

New Mexico, *Rec. VI*, 731.

New South Wales, *Rec. VII*, 136, 511, 690; *VIII*, 234; *IX*, 454; *XI*, 355.

New Zealand, *Rec. VII*, 38.

North America, *Rec. VI*, 785.

North Germany, *Rec. VII*, 218.

Ohio, *Rec. VIII*, 996.

Oklahoma, *Rec. VII*, 872; *XI*, 354.

Ontario, *Rec. VI*, 431; *XII*, 1052.

Weeds—Continued.

of Oregon, *Rec. VI*, 822.

Swedish moorlands, *Rec. VII*, 511; *VIII*, 58.

Tennessee, *Bul. 2, I*, 186.

the farm, notes, *Rec. II*, 164.

the mustard family, *Rec. IV*, 167.

the Northwest, *Rec. XII*, 565.

Vermont, *Rec. IV*, 472; *XI*, 354.

West Virginia, *Rec. IV*, 167.

Wisconsin, *Rec. XI*, 749.

Wyoming, *Rec. VIII*, 794, 989.

one hundred worst, *Rec. IV*, 45.

perennial, vegetative propagation, *Rec. X*, 359.

plan for investigation, *Rec. I*, 130.

propagation and eradication, *Rec. VII*, 135.

relation to soil fertility, *Rec. IX*, 565.

relative aggressiveness, *Rec. XI*, 749; *XII*, 350.

root systems, *Rec. IV*, 45; *V*, 398.

six worst, *Rec. II*, 655.

studies, *Rec. VII*, 178.

value as feeding stuffs, *Rec. III*, 893.

winter condition, *Rec. V*, 398.

Weeping—

bird cherry, notes, *Rec. III*, 788.

elm, notes, *Rec. IV*, 655.

juniper, notes, *Rec. V*, 54.

mountain ash, notes, *Rec. IV*, 655.

silver fir, *Rec. IX*, 651.

slippery elm, notes, *Rec. IV*, 655.

spruce, *Rec. IX*, 652.

Weevil, leaf, notes, *Rec. VIII*, 611, 909.

Weevils, granary, notes, *Rec. VI*, 442.

(*See also* GRAIN WEEVIL, PEA WEEVIL, etc.)

Weigela, notes, *Rec. IV*, 655.

Weighing—

flask, new calibrated, *Rec. VIII*, 862.

tube, new, *Rec. XI*, 112.

Weights—

and measures in Porto Rico, *Rec. X*, 1018.

atomic, unity, *Rec. VIII*, 669.

standardization, *Rec. XII*, 22.

Weisman's theory, critical examination, *Rec. V*, 657.

Well—

water—

analyses, *Rec. III*, 162, 357, 444, 530; *IV*, 16, 244, 433; *VIII*, 863; *IX*, 821; *X*, 228, 831; *XI*, 328.

for pigs, *Rec. II*, 427.

of Harpenden, England, *Rec. III*, 139, 901.

temperature, *Rec. X*, 616.

waters, contamination, *Rec. XII*, 731.

Wellman—

expedition, second, *Rec. XI*, 620.

polar expeditions, *Rec. X*, 419.

Wells—

and storms, *Rec. XII*, 831.

artesian—

as a means of water supply, *Rec. VIII*, 385.

of southern Wyoming, *Rec. VI*, 848.

bacteriological examination, *Rec. VII*, 99.

blowing, *Rec. XII*, 694.

disinfection with potassium permanganate, *Rec. XII*, 926.

near churchyards, water from, *Rec. V*, 1098.

of Michigan, *Rec. XII*, 695.

pollution, *Rec. IX*, 821.

West American fungi, new species, *Rec. VIII*, 671.

- West Indian—
hurricane—
of September 29, 30, 1896, Rec. VIII, 676.
service, Rec. XI, 126.
lime, Rec. V, 1030.
peach scale, Rec. VIII, 68.
weather service, Rec. X, 419; XI, 621.
- West Indies, Department of Agriculture, Rec. XI, 101.
- West Virginia Station, agriculture at, Rec. IX, 950.
- Western—
corn root worm, Rec. VIII, 505.
Reserve Fertilizer, analyses, Rec. II, 327.
wheat grass, notes, Rec. X, 343.
- Wethers. (See SHEEP.)
- Whalebone scrapings, analyses, Rec. X, 428.
- Whale-flesh meal—
analyses, Rec. VI, 156, 163; XI, 79.
food value, Rec. VI, 156.
for cows, Rec. VI, 927.
- Whale-oil soap—
as an insecticide, Rec. XI, 66; XII, 62.
for cherry slug, Rec. IV, 416.
codling moth, Rec. II, 660.
elm aphid, Rec. IX, 1065.
pear-tree psylla, Rec. IV, 474.
plant lice, Rec. X, 65, 467.
red spider, Rec. X, 270.
San José scale, Rec. IX, 155, 1066; X, 160, 162, 468; XI, 274, 473, 560, 654.
scale insects, Rec. XII, 68.
preparation and use, Rec. XI, 273.
- Wheat—
acreage, Rec. III, 53.
acreage in—
Great Britain, 1891, 1892, Rec. IV, 521.
the United States, June, 1892, Rec. IV, 76.
after melilotus, Rec. IV, 344.
Alinit experiments, Rec. XII, 336, 739.
- American—
basis for improvement, Rec. XII, 939.
culture experiments in Germany, Rec. VIII, 45.
in India, Rec. XI, 144.
analyses, Rec. II, 70; III, 890; IV, 733, 914; VI, 752, 1008; VII, 396; VIII, 426, 714, 884; X, 275, 944; XII, 273, 478, 642.
- and flour—
American *v.* Australian, Rec. VIII, 521.
in Belgium, Rec. IX, 898.
and barley for hay, Rec. V, 577; VI, 808.
oats, mixed seeding, Rec. VII, 862.
- and rye flours—
determination of fat in, Rec. VIII, 196.
for bread making, Rec. IV, 694.
- and wheat—
products of California, composition, Rec. VI, 839.
straw, examination, Rec. V, 676.
- aphid, enemies, Rec. I, 226.
- as a feeding stuff, Rec. VI, 255, 449, 752; XI, 1075; XII, 177.
a forage plant, Rec. III, 376.
- ash—
analyses, Rec. X, 873.
constituents, Rec. III, 373; 890; VIII, 914; IX, 377.
- Wheat—Continued.
at Rothamsted in 1899, Rec. XI, 732.
Austria-Hungary as a market, Rec. IX, 599.
- baking—
quality, Rec. V, 372.
tests, Rec. IV, 408.
- barley, and pea seeds, individuality, Rec. IX, 758.
- barnyard manure for, Rec. VI, 979.
- bearded *v.* smooth, Rec. I, 289; II, 251.
- black stem rust, Rec. XI, 463, 943.
- bleached, notes, Rec. II, 157.
- blight, notes, Rec. IV, 414.
- blighted, notes, Rec. II, 157, 213.
- blighting, Rec. X, 361.
- blistered, notes, Rec. II, 157.
- botanical, notes, Rec. XI, 640; XII, 219, 898.
- bran—
adulteration, Rec. III, 264; V, 264, 927; XI, 278.
analyses, Bul. 2, I, 33; 83, 197; Rec. I, 15, 150, 197, 198; II, 50, 133, 243, 295, 340, 495, 565, 579, 589, 645, 666, 667; III, 153, 157, 288, 296, 318, 401, 690, 878; IV, 64, 68, 175, 177, 242, 569, 732, 733, 935; V, 64, 66, 194, 316, 410, 499, 596, 856; VI, 163, 274, 331, 444, 569, 752, 842, 1008, 1023; VII, 155, 336, 614; VIII, 153, 154, 331, 426, 427, 508, 520, 714, 810, 1004; IX, 266, 682, 786, 1024; X, 276, 474, 678, 1089; XI, 279, 381, 777, 883; XII, 70, 71, 169, 234, 281, 378, 877, 907, 981.
and corn meal for pigs, Rec. XI, 967.
linseed meal *v.* corn meal for milk production, Rec. V, 889.
palm oil, analyses, Rec. XII, 378.
Paris green for cutworms, Rec. VI, 441.
shorts for horses, Rec. VII, 802.
shorts *v.* barley for steers, Rec. X, 671.
- as a feeding stuff, Rec. III, 579.
- ash, analyses, Rec. IX, 825.
- cost and valuation, Bul. 2, I, 53.
- digestibility, Bul. 2, I, 132; Rec. IV, 570, 733, 734; VI, 318; VII, 317; VIII, 1005; X, 180.
- digestibility of albuminoids, Rec. V, 227.
- distribution of weeds through feeding, Rec. V, 823.
- ergot in, Rec. V, 655.
- examination, Rec. V, 720.
- fermentation, Rec. V, 254.
- fermented *v.* unfermented for pigs, Rec. XI, 967.
- fertilizing constituents, Bul. 2, I, 133.
- for calves, Rec. III, 221; V, 388.
cows, Bul. 2, II, 80; Rec. III, 19, 153, 222, 287; IV, 260; VI, 657; VIII, 335.
horses, Rec. V, 389.
pigs, Bul. 2, I, 78; Rec. I, 63; II, 577, 646, 647; III, 131, 156, 181, 222, 478; IV, 68; V, 388.
sheep, Rec. V, 387.
steers, Rec. III, 162, 391; V, 633.
- lecithin content, Rec. V, 803.
- new process, analyses, Rec. I, 282.
- roller process, analyses, Rec. VI, 405.
- spring *v.* winter, Rec. VI, 842.
- structure and composition, Rec. V, 856.

Wheat—Continued.

bran—continued.

- v. corn meal for fowls, Rec. IV, 940.
- corn meal for steers, Bul. 2, II, 82.
- cotton-seed meal for butter production, Rec. V, 72.
- cotton-seed meal for cows, Rec. III, 468.
- ground oats for milk and butter production, Rec. II, 430, 440.
- linseed meal and corn meal for cows, Rec. VIII, 335.
- middlings for pigs, Rec. II, 646.
- oats for cows, Rec. IV, 259; IX, 881.
- oats for horses, Rec. V, 540.
- pea vine silage for cows, Rec. VIII, 527.
- rice bran for cows, Rec. XI, 1078.
- rye or barley for pigs, Rec. V, 429.
- wheat for pigs, Rec. V, 227.
- whole grain for feeding, Rec. VI, 1011.
- winter v. spring wheat, Rec. VI, 842.

bread. (See BREAD.)

- breakfast food, analyses, Rec. XII, 273.
- breeding, Rec. IX, 135, 638; X, 750; XI, 144, 1039.

breeding—

- for Australia, Rec. XI, 217.
- resistance to rust, Rec. XI, 843.
- methods, Rec. XI, 639.

brown rust, Rec. IX, 362, 660.

brown rust—

- sources of infection, Rec. XI, 554.
- studies, Rec. XII, 567.

bulb worm, notes, Rec. III, 223, 860.

bunt or stinking smut, treatment, Rec. XII, 1056.

by-products—

- analyses, Rec. I, 230; VI, 839; IX, 809.
- explanation of terms, Rec. I, 230.

carbohydrates, Rec. VIII, 664, 951.

carbohydrates—

- insoluble, Rec. X, 872.
- soluble, Rec. X, 873.

chaff—

- analyses, Rec. III, 296.
- digestibility, Bul. 2, I, 32; Rec. VII, 149, 154.
- fertilizing constituents, Bul. 2, I, 133.

characteristics of young plants, Rec. XII, 442.

- chemical changes in molding and sprouting, Rec. XI, 1036; XII, 108.
- chemistry, Rec. VI, 723; X, 943.
- chop, analyses, Rec. XII, 471.
- composition, Rec. IX, 174.

composition—

- as affected by climate and soil, Rec. XII, 339.
- at different stages of ripening, Rec. IV, 175; V, 782; VII, 955.
- condition August, 1892, Rec. IV, 283.
- consumption in the United States, Rec. VI, 943.
- continuous cropping, Rec. II, 219, 655; III, 186, 225, 510; VI, 211; VIII, 594; X, 142.
- cooperative experiments, Rec. II, 228, 252, 300.
- corn sawfly borer in, Rec. I, 277.

crop—

- foreign, Rec. XII, 498.
- of Argentina, Rec. XII, 1098.
- British India, Rec. XII, 399.

Wheat—Continued.

crop—continued.

- of Denmark, Rec. IX, 398.
- Germany, Rec. IX, 397.
- Hungary, Rec. IX, 397.
- India, Rec. III, 183; IV, 429, 430; VI, 347; X, 98.
- Victoria, Australia, Rec. VI, 943.
- statistics, Rec. II, 609; III, 107, 183, 543, 545, 728; IV, 762; V, 221, 328, 612, 799, 1005, 1088; VI, 582, 943; XI, 698; XII, 698.

cross—

- bred varieties, Rec. VIII, 224.
- breeding, Rec. X, 750, 1013.
- fertilization, Rec. V, 435, 808; VII, 273; VIII, 124.
- with rye, Rec. VII, 750.
- with spelt, Rec. X, 826.

crossing, Rec. VIII, 222, 223; X, 826, 1013.

crossing for seed, Rec. V, 177; VII, 119.

cultivated, botany of, Rec. IV, 693.

cultivation, methods of, Bul. 2, II, 22.

culture, Rec. V, 128; VIII, 126; IX, 552, 553, 833; X, 735, 750, 836, 945; XII, 850, 1036, 1039.

culture—

- by Lois Weedon system, Rec. V, 867.
- experiments, Bul. 2, I, 64, 70; Bul. 2, II, 21, 39, 40, 75, 82, 111, 123, 132, 146; Rec. I, 19, 288; II, 4, 6, 7, 124, 132, 147, 219, 227, 273, 287, 300, 315, 326, 327, 336, 351, 392, 395, 520, 606, 655, 663, 675, 726; IV, 145, 825, 914; VI, 633; VIII, 308, 588; X, 43, 433; XI, 42, 239, 338, 642, 832; XII, 134, 229, 535, 536, 628, 639, 640, 745, 846, 848, 850, 943, 1031, 1034, 1035, 1036, 1039.

for soiling, Rec. IV, 29.

in Denmark, Rec. IX, 941.

England, Rec. VII, 390; IX, 46.

Georgia, Rec. III, 387.

Modena, Rec. VI, 543.

New Brunswick, Rec. X, 246.

North Dakota, Rec. V, 178.

Ohio, Rec. III, 526.

Portugal, Rec. XI, 341.

Queensland, Rec. VI, 296; VII, 768.

South Alabama, Rec. IX, 553.

the future, Rec. XI, 341.

influence of soil, Rec. IX, 639.

intensive, Rec. XI, 843.

methods of, Rec. II, 172, 250, 274.

decorticated, Rec. VI, 898.

digestibility, Rec. VI, 1009; VII, 425.

diseases, Rec. IV, 345; VI, 226; VII, 141, 410, 695; XII, 1056.

diseases in Sardinia, Rec. VIII, 318; IX, 1062.

distribution and consumption, Rec. II, 609; III, 728; IV, 762; V, 1005.

ear cockle, treatment, Rec. X, 457; XI, 759.

early and late plowing, Rec. VIII, 594; XII, 898.

eel, notes, Rec. IX, 1062; X, 165.

effect of—

- alkali soils on, Rec. VI, 984.
- alkaline compounds, Rec. XII, 911, 1008.
- amount of soil water, Rec. XII, 45.
- barnyard manure on, Rec. II, 220; V, 37, 332, 705, 867; VI, 722, 891.

Wheat—Continued.

effect of—continued.

- change of soil, Rec. VI, 268; VII, 394; VIII, 489.
- continuous cropping without fertilizers, Bul. 2, II, 21.
- copper sulphate in soil, Rec. IV, 15.
- different substances, Rec. XII, 718.
- drought, Rec. V, 622.
- fertilizers, Bul. 2, II, 22, 83, 148; Rec. II, 273, 726.
- fungi, Rec. X, 561.
- hot water on vitality, Rec. II, 325.
- lime, Rec. X, 633; XII, 625.
- lime and cowpeas, Rec. X, 633.
- magnesia, Rec. IX, 749.
- nitrate of soda on growth, Rec. II, 727.
- pasturing, Bul. 2, II, 22; Rec. I, 214; III, 225; IV, 407; VIII, 594.
- phosphates, Rec. III, 294; IV, 27, 131.
- phosphoric acid, Bul. 2, II, 132; Rec. X, 245.
- strontium salts, Rec. XII, 911.
- sulphate of iron, Rec. III, 357, 358.
- Tanymecus indicus*, Rec. XI, 1062.

Egyptian—

- composition, Rec. V, 256.
- culture experiments, Rec. IV, 645; V, 176.
- embryo, relation between size of and entire grain, Rec. VI, 294.
- experiments, Rec. XI, 498.
- exports, Rec. II, 609; XII, 698.
- exports to Eastern Asia, Rec. IX, 397.
- farming, effect on soil fertility, Rec. XI, 1099.
- feeds, analyses, Rec. IV, 935; X, 678; XII, 70, 169, 472, 877.
- fertilizer experiments, Bul. 2, I, 24, 126, 173; Rec. I, 148, 158, 187, 189, 214, 218, 288; III, 35, 172, 186, 215, 227, 241, 299, 320, 510, 527, 536; IV, 27, 36, 210, 341, 342, 343, 406, 649, 823, 872, 912, 915; V, 51, 167, 186, 495, 575, 705, 708, 712, 778, 780; VI, 211, 413, 418, 419, 542, 720, 806, 809; VII, 119, 122, 300, 398, 579, 942, 943; VIII, 221, 489, 778, 973; IX, 235, 747, 830, 832, 833; X, 44, 148, 835, 842, 843, 846, 848, 950, 1037; XI, 42, 731, 732, 833, 841, 842, 925, 1036, 1038; XII, 125, 127, 132, 339, 531, 537, 628, 642, 847, 931, 943, 1034, 1035.
- fertilizer experiments in India, Rec. V, 332.
- fertilizing, Rec. XII, 953.
- field experiments, Bul. 2, II, 21, 39, 40, 75, 82, 111, 123, 132, 146; Rec. IV, 787, 875; VII, 581; VIII, 222.
- fields, west and northwest, yields, Rec. XI, 1038.
- flour—
 - adulteration, Rec. IX, 980; X, 80; XI, 311.
 - analyses, Rec. V, 856, 890; VI, 1008; X, 475; XI, 777.
 - and rye flour, method of distinguishing, Rec. IV, 389.
 - baking tests, Rec. VII, 518.
 - composition, Rec. VII, 522.
 - detection of maize flour, Rec. X, 314.
 - determination in rye flour, Rec. X, 281.
 - gluten content, Rec. VII, 518.
 - prepared, analyses, Rec. X, 475.
 - proteids, Rec. XI, 872.

Wheat—Continued.

fly—

- companion, description and treatment, Rec. III, 889.
- notes, Rec. II, 228.
- fodder, analyses, Rec. III, 375; V, 596; VIII, 1004.
- food, analyses, Rec. X, 475.
- for alimentary pastes, Rec. XI, 380, 1038.
- brewing purposes, Rec. VIII, 308; XII, 47.
- cattle, Rec. V, 1065; VII, 337.
- cows, Rec. VI, 160, 463.
- hay, Rec. V, 577 578; VI, 808.
- horses, Rec. VII, 802.
- milling, requirements Rec. X, 1040.
- pigs, Rec. III, 624; V, 993, 1065, VI, 161, 466, 468; VII, 62, 241, 248, 524, 609, 798, 800, 981; VIII, 326, 332, 715, 917; IX, 871; X, 176.
- sheep, Rec. III, 624.
- soiling, Rec. IV, 480; VIII, 250.
- French Rieti, Rec. V, 652.
- frost resistance, Rec. XI, 1038.
- frosted, studies, Rec. I, 94, 95, 99.
- frozen—
 - analyses, Rec. V, 631.
 - as a feeding stuff, Rec. V, 631; VI, 452.
 - composition and feeding value, Rec. XI, 1075.
 - for pigs, Rec. IV, 513; VI, 466.
 - test, Rec. II, 3, 157.
- fungicides for smut, Rec. II, 220.
- fungus disease, Rec. VI, 312.
- fungus disease, undetermined, Rec. IV, 592.
- germ—
 - analyses, Rec. IV, 733; VI, 1008.
 - lecithin content, Rec. V, 803.
 - nucleic acid and proteids, studies, Rec. XII, 512.
 - raffinose in, Rec. V, 819, 1027.
- germination, Rec. II, 514.
- germination as affected by—
 - alkali, Rec. XII, 1008.
 - copper sulphate, Rec. II, 32; V, 437.
 - copperas, Rec. II, 32.
 - fertilizers, Rec. X, 349.
 - formaldehyde, Rec. XII, 457.
 - frost, Rec. I, 19, 95, 99.
 - hot water, Rec. V, 304.
 - latitude, Rec. XI, 355.
 - light, Rec. VII, 372.
 - nutrient solutions, Rec. XI, 750.
 - potassium sulphid, Rec. V, 304.
 - salts, Rec. VI, 904; X, 1026.
 - temperature, Rec. XI, 156, 1056.
 - treatment for smut, Rec. XII, 1050.
- germination—
 - defective, Rec. VI, 301.
 - respiration in, Rec. XI, 29.
 - tests, Bul. 2, I, 30; Rec. II, 514; V, 628; IX, 454; XI, 857.
- gliadin of, Rec. IV, 934.
- globulins of, Rec. IV, 934.
- gluten—
 - albuminoid, Rec. X, 917.
 - analyses, Rec. IX, 777.
 - constituents, Rec. XII, 476.
 - distribution, Rec. X, 779.

Wheat—Continued.

- gluten—continued.
 - in, *Rec. V*, 870; *VII*, 518.
 - in, early formation, *Rec. IV*, 614.
- glutenin of, *Rec. IV*, 935.
- "goose," analyses, *Rec. VI*, 1008.
- grading, *Rec. IX*, 834.
- grain—
 - hardness of, *Rec. VIII*, 47.
 - structure, *Rec. V*, 856.
 - studies, *Rec. XI*, 843.
- grains—
 - color and nitrogen content, *Rec. VI*, 543.
 - large *v.* small for seed, *Rec. XII*, 233, 236, 441.
 - variations in quality, *Rec. IX*, 749.
- grass—
 - as a forage plant, *Rec. III*, 28.
 - bearded, analyses, *Rec. VI*, 404.
 - Japanese, adaptation, *Rec. III*, 595.
 - Japanese, culture experiments, *Rec. VIII*, 687; *X*, 245.
 - Japanese, notes, *Rec. V*, 577; *VI*, 721.
 - notes, *Rec. III*, 308; *IV*, 47, 472, 699, 925; *VIII*, 780; *XII*, 436.
 - root system, *Rec. IV*, 46.
 - slender, analyses, *Rec. V*, 404.
 - western, analyses, *Rec. VI*, 404.
 - western, notes, *Rec. X*, 147, 343.
 - wild, culture experiments, *Rec. I*, 121.
- grasses, notes, *Rec. VIII*, 780; *XI*, 423.
- green manuring—
 - for, *Rec. II*, 372; *III*, 172; *IV*, 207, 912; *V*, 331; *VI*, 803; *IX*, 234.
 - with field beans, *Rec. IV*, 208.
 - vetches for, *Rec. IV*, 208.
- ground—
 - analyses, *Rec. V*, 631; *VI*, 569; *XII*, 70.
 - and unground, for pigs, *Rec. IV*, 483.
 - for cows, *Rec. VI*, 462.
- growing, *Rec. III*, 807.
- growing—
 - capacity of United States, *Rec. X*, 750.
 - cost and profit in, *Rec. V*, 576, 1005; *VI*, 44; *VII*, 578; *VIII*, 308.
 - in California, *Rec. XII*, 144.
 - Ohio, *Rec. X*, 710.
 - soils extracted with acid, *Rec. XI*, 1019.
 - science of, *Rec. VIII*, 688.
 - with flax, *Rec. XI*, 644.
- grown—
 - continuously with fertilizers, *Rec. V*, 165.
 - continuously without fertilizers, *Rec. IV*, 406; *V*, 582.
 - on saline soil, composition, *Rec. VI*, 984.
- guano, Mona Island, for, *Rec. IV*, 27.
- gypsum for, *Rec. III*, 224; *V*, 331, 495.
- harvesting, *Bul. 2*, *I*, 66; *Rec. II*, 275; *IV*, 824; *V*, 48, 186; *VI*, 539.
- harvesting—
 - at different dates, *Rec. IV*, 341; *VI*, 413, 416; *VII*, 580; *VIII*, 224, 489.
 - different stages of ripeness, *Rec. VII*, 395; *X*, 148, 633.
 - in Australia and in England, *Rec. VII*, 300.
- hay, analyses, *Rec. VI*, 153; *VIII*, 714.

Wheat—Continued.

- head army worm, notes, *Rec. VI*, 312, 313, 835.
- heat of combustion, *Rec. XII*, 873.
- Heine bearded squarehead, *Rec. X*, 349.
- hoeing, *Rec. V*, 49; *VI*, 539.
- hulls, analyses, *Rec. VIII*, 1004.
- in alternation with corn, with and without manure, *Rec. VIII*, 489.
- France, loss of nitrogenous matter in, *Rec. VIII*, 688.
- relation to climate and law of correlation, *Rec. V*, 652.
- injury—
 - by grain aphid, *Rec. XII*, 868.
 - hail, *Rec. X*, 847.
 - Hessian fly, *Rec. IX*, 775.
 - Lachnosterna* sp., *Rec. VI*, 1003.
 - rust, *Rec. V*, 576.
 - to grain by thrashing, *Rec. XII*, 42.
- inoculation experiments, *Rec. XI*, 1016.
- insects—
 - affecting, *Rec. VI*, 654, 917; *VIII*, 507; *X*, 975; *XI*, 955; *XII*, 1067.
 - underground, *Rec. IV*, 398.
 - undetermined species of, *Rec. IV*, 417.
- irrigation—
 - experiments, *Bul. 2*, *I*, 29; *Rec. IV*, 211, 824; *VI*, 86, 539, 581; *X*, 44, 634; *XII*, 642.
 - methods of, *Rec. XI*, 834.
- jointworm—
 - description and treatment, *Rec. III*, 889.
 - injury, *Rec. IV*, 667.
 - notes, *Rec. XII*, 1063.
 - remedies, *Rec. III*, 889; *XI*, 553.
- kainit for, *Rec. V*, 332.
- kernel—
 - histology, *Rec. XI*, 482.
 - proteids of, *Rec. V*, 1079; *VI*, 163, 241.
- Ladoga, field experiments, *Rec. IV*, 689.
- lands—
 - of Canada, *Rec. XI*, 644.
 - soils, *Rec. XI*, 226.
- leaf miner, notes, *Rec. III*, 813.
- leaf rust of, studies, *Rec. XI*, 463.
- legal weight per bushel in different States, *Rec. II*, 609.
- limit of tolerance of sodium perchlorate, *Rec. XI*, 917.
- listing, *Rec. I*, 215; *III*, 224; *IV*, 407; *V*, 582.
- lodging, *Rec. V*, 166.
- loss in weight by sprouting, *Rec. VIII*, 914.
- losses in growing, *Rec. II*, 353.
- louse— (*See also GRAIN APHIS.*)
 - notes, *Rec. III*, 309.
 - remedies, *Rec. II*, 164.
- manuring, *Rec. VII*, 952; *IX*, 446.
- manuring—
 - in Australia, *Rec. XII*, 1039.
 - autumn, *Rec. IX*, 553.
- mature *v.* immature seed, *Rec. IV*, 407.
- meal—
 - analyses, *Rec. VIII*, 1004.
 - v.* corn meal for beef cattle, *Rec. VIII*, 77.
 - corn meal for cows, *Rec. VIII*, 825.
 - rye meal for pigs, *Rec. VIII*, 423.
- Medeah, history, *Rec. X*, 41.
- microparasites, *Rec. XI*, 59.

Wheat—Continued.

middlings—

analyses, Rec. I, 15, 197; II, 232, 243, 504, 589, 645; III, 13, 157, 296, 401, 878; IV, 64, 175, 732, 935; V, 410, 499; VI, 444; VII, 155, 614; VIII, 426, 714, 810, 1004; IX, 682, 786; X, 1089; XI, 279, 381, 971; XII, 281, 877, 981.

and bran, comparative digestibility, Rec. II, 645.

cost and valuation, Bul. 2, I, 53.

digestibility, Bul. 2, I, 132; Rec. II, 645; - VI, 318.

fertilizing constituents, Bul. 2, I, 133.

for colts, Rec. III, 391.

pigs, Rec. II, 413, 646; III, 49, 130, 392, 478; XII, 779.

midge, notes, Rec. III, 197, 315; VIII, 418; X, 164, 568; XI, 558, 862, 952, 955, 1065; XII, 862.

mildew in Saxony, notes, Rec. VI, 437.

mill products, Rec. VII, 336.

milling—

qualities, Rec. VII, 256, 953; VIII, 305, 402; IX, 834; XI, 442.

tests, Rec. IV, 408; VIII, 913.

mixed varieties, Rec. II, 655; VI, 412.

mowing, Rec. IV, 342; V, 186; VI, 415.

mulching, Rec. III, 243.

mummy, studies, Rec. XII, 825.

muriate of potash for, Rec. V, 495, 705.

nematode, notes, Rec. IX, 1062; XII, 1067.

nitrate of soda—

for, Rec. II, 727; III, 927; IV, 210, 891; V, 625.

v. dried blood, Rec. V, 165.

sulphate of ammonia for, Rec. V, 233; X, 848.

nitrogen content, relation to grain weight, Rec. XII, 327.

nitrogenous—

compounds of, Rec. X, 943.

fertilizers for, Rec. III, 512; IV, 342; V, 186; VI, 414.

Noe's, resistance to lodging, Rec. III, 928.

northern *v.* southern seed, Rec. III, 168.

notes, Rec. XII, 945.

nutritive value, Rec. VI, 255.

oats, and bran, analyses, Rec. XII, 471.

oil, studies, Rec. X, 821; XI, 618.

orange leaf rust, notes, Rec. XI, 943.

origin of—

bearded square-head variety, Rec. VIII, 596.

different kinds, Rec. XI, 241.

parasites of, Rec. XI, 59.

pasturing. (*See* WHEAT, EFFECT OF PASTURING.)

"piétin," notes, Rec. XII, 567.

plant—

chemical investigation, Rec. V, 867; VI, 723.

draft on soil, Rec. V, 868.

life history, Rec. VI, 280.

relation of parts, Rec. III, 269.

plants, thrifty and sickly, Rec. V, 868.

plowing for, Rec. V, 51, 583; VI, 540; VIII, 489.

Wheat—Continued.

poisonous effect of—

ammonium compounds, Rec. XII, 717.

sodium compounds, Rec. XII, 717.

Polish—

analyses, Rec. VII, 891.

culture experiments, Rec. II, 392; VIII, 308.

potash salts for, Rec. X, 623.

preservation, Rec. VII, 397.

prices—

in England, Rec. VII, 164.

since 1865, Rec. VI, 943.

production—

and distribution, Rec. IV, 844.

in Argentina, Rec. IX, 242.

Kentucky, Rec. XII, 547.

New South Wales, Rec. IX, 298.

Russia, Rec. III, 253.

statistics, Rec. VIII, 637.

proteid formation during germination, Rec. XII, 216.

proteids, Rec. IV, 934; VII, 248, 522, 616.

proteids, separation, Rec. VIII, 854, 861; IX, 323.

proteose of, Rec. VIII, 856.

quality—

in different years, Rec. III, 823.

relation to color of grain, Rec. XII, 335.

reasons for low yields, Rec. XII, 1039.

red *v.* white, Rec. I, 289; II, 251.

Rieti, Rec. XII, 1039.

Rieti—

for bread making, Rec. VIII, 155.

in France, Rec. VI, 296.

notes, Rec. V, 437.

ripening, Rec. VI, 139.

Rivet, notes, Rec. V, 437.

rolling, Rec. V, 48; VI, 539.

root—

disease, Rec. X, 650.

system, Rec. XI, 215; XII, 517.

roots, analyses, Bul. 2, I, 57.

rotation, Rec. I, 206; IV, 406; V, 178, 713; VII, 952; VIII, 305, 594.

rotation—

experiments, Rec. III, 225; X, 142; XI, 733, 833.

v. continuous cropping, Rec. IV, 341; V, 185; VI, 413; VIII, 214; IX, 741.

with clover, Rec. V, 128.

rust, Rec. I, 138; IX, 829; X, 861, 864.

rust—

cause, Rec. XI, 861.

conference, Rec. VIII, 498.

fungi, Rec. I, 204.

fungicides for, Rec. III, 787.

in Australia, Rec. VIII, 239, 996.

losses, Rec. XII, 461.

notes, Rec. III, 286, 871; IV, 414, 956; V, 576; VI, 58, 307, 560, 737; XI, 161.

prevalence on soils rich in nitrogen, Rec. VI, 58.

recent literature, Rec. XII, 461.

red, Rec. X, 864.

resisting varieties, Rec. VI, 59; XI, 444, 463.

Wheat—Continued.

rust—continued.

treatment, Rec. III, 286; VI, 59, 435; XI, 1061.

rusted—

notes, Rec. II, 213.

studies, Rec. I, 94, 95, 100.

salt on, experiments, Rec. V, 712.

scab—

fungus, study, Rec. VI, 312.

notes, Rec. III, 512, 689; IV, 345, 414, 415; VI, 736; XI, 161, 315.

scorched, analyses, Rec. XII, 169.

screenings—

analyses, Rec. II, 495; V, 312, 538; VI, 752, 1008; VIII, 714; XI, 883.

chemical composition, Rec. I, 90.

for lambs, Rec. VIII, 251.

seed—

absorption of water, Rec. X, 1025; XI, 1056.

chemical investigation, Rec. V, 867.

cleaning, Rec. II, 655.

conditions affecting, Rec. IV, 914.

distribution, Rec. IV, 436.

effect of copper sulphate, Rec. III, 357, 358.

effect of iron sulphate, Rec. II, 32; III, 357, 358.

exchange, Rec. VII, 30.

frosted, Rec. IV, 915.

grading, Rec. VIII, 594.

heated, Rec. IV, 915.

heavy and light, Rec. V, 868.

immature, Rec. IV, 915.

influence of size of grains, Rec. V, 437.

influence of size of grains on the yield, Rec. V, 526; XII, 233, 236, 441.

Maryland *v.* Kansas grown, Rec. IV, 36.

northern *v.* southern, Rec. III, 168, 445, 480, 515.

selection, Rec. II, 326, 655; III, 224, 510; IV, 36, 407, 410; V, 50, 177, 437, 526, 527, 582, 583, 868; VI, 43, 139, 560, 719; VII, 119, 679, 952; VIII, 222; IX, 131; X, 239, 240, 632; XI, 331, 630; XII, 340, 898.

specific gravity, Rec. VI, 414.

tests, Rec. IV, 915.

treatment for smut, Rec. III, 243.

winter bleached, Rec. IV, 915.

seeding—

at different dates, Bul. 2, II, 112; Rec. I, 288; II, 250, 274, 326, 520; IV, 340, 406, 823; V, 50, 185, 623, 679; VI, 413, 415, 722; VII, 116, 119, 394, 398, 951; VIII, 489, 491, 594; IX, 346, 347, 440, 830, 833, 1047; X, 142, 239, 632, 634, 836, 846, 945.

at different depths, Bul. 2, II, 112; Rec. I, 288; II, 250; III, 215, 243; IV, 343, 344, 823; VII, 119, 398, 580; X, 836.

at different rates, Bul. 2, II, 111; Rec. I, 206, 288; II, 250, 274, 326; III, 227, 510; IV, 340, 343, 407, 823; V, 177, 185, 582, 678; VI, 412, 413, 415; VII, 394, 862, 951; VIII, 305, 489, 594, 781; IX, 346, 347, 833, 1047; X, 632, 736, 945, XI, 332.

Wheat—Continued.

seeding—continued.

by different methods, Bul. 2, II, 112; Rec. I, 218; II, 227; III, 224, 510; IV, 36, 344, 407; V, 178, 582, 679, 1093; VI, 985; IX, 132.

experiments, Rec. XII, 339.

frosted, Rec. II, 156.

frozen, Rec. II, 156.

in drills, Rec. III, 24; VI, 985; VII, 580; VIII, 490; IX, 833, 1047.

drills *v.* broadcast, Rec. II, 664; III, 227, 243; IV, 344; V, 50; VI, 416; VII, 580; X, 239, 632, 634, 842; XI, 629.

drills *v.* listing, Rec. II, 219.

mixed varieties, Rec. IV, 344; V, 1029.

rusted, Rec. II, 156.

studies, Rec. VIII, 492.

sheaf—

for pigs, Rec. VIII, 917.

steers, Rec. VIII, 918.

shorts—

analyses, Rec. I, 15; II, 340; III, 157, 878; IV, 175, 733; VI, 569, 1008; VIII, 719, 810; XII, 234, 281, 471.

digestibility, Rec. IV, 734; X, 180.

v. wheat bran for cows, Rec. VI, 659.

shredded, analyses, Rec. XII, 281.

shrinkage in the granary, Rec. IV, 344.

single varieties *v.* mixtures, Rec. III, 225.

size of grain as affected by climate, Rec. XII, 737.

smut—

fungicides for, Rec. II, 221, 638; III, 225, 286; VIII, 268.

hot water treatment, Rec. II, 221; III, 243; VII, 140, 589; VIII, 240; IX, 639; X, 267, 559, 633.

loose, notes, Rec. I, 208; II, 220, 326, 342, 638; III, 127, 286; IV, 50; VI, 559; XI, 160, 161, 314, 361; XII, 356, 461.

notes, Bul. 2, II, 39; Rec. II, 253, 352, 740; IV, 50, 341, 345, 352, 414, 729; VI, 147, 294; VII, 140, 410; XI, 161, 314; XII, 61, 359.

prevalence in Northwest Territories, Rec. II, 7.

stinking, Rec. I, 208; II, 220, 325, 638; III, 127, 172, 286; VI, 559, 560; IX, 143; XI, 161, 361; XII, 356, 359.

stinking, treatment, Rec. I, 208; III, 226, 286; VI, 435, 559, 560; VII, 874.

treatment, Rec. II, 173, 220, 221, 325, 638; III, 243, 631; V, 186, 402, 685; VI, 435; VII, 39; VIII, 237, 240, 606; IX, 144, 363, 639; X, 267, 559, 633, 836, 864; XI, 162, 356, 361, 1057; XII, 328.

soft, composition, Rec. XI, 1075.

soil—

exhaustion by, Rec. V, 868.

preparation, Bul. 2, II, 112; Rec. II, 274; V, 52, 178; VI, 540; X, 632.

spot disease, notes, Rec. XI, 161.

spring—

as affected by distance of planting, Rec. XII, 132.

broadcasting *v.* drilling, Rec. X, 239; XI, 629.

Wheat—Continued.

spring—continued.

- culture experiments, *Rec. VIII*, 308, 400.
- date for sowing, *Rec. V*, 623.
- fertilizer experiments, *Rec. XII*, 536.
- harrowing, *Rec. III*, 224.
- in Queensland, *Rec. XII*, 1039.
- mixed varieties, *Rec. V*, 1029.
- mowing, *Rec. VI*, 415.
- nitrate of soda for, *Rec. VI*, 891.
- seed, selection, *Rec. X*, 240; *XI*, 630.
- seeding at different dates, *Rec. X*, 239.
- varieties, *Rec. I*, 122; *V*, 623, 625; *VI*, 216, 416, 418, 419, 898; *VII*, 671; *VIII*, 687, 971, 972; *IX*, 440, 827, 832; *X*, 239, 537; *XI*, 44, 628, 632; *XII*, 47, 134, 229, 328.

v. winter, in France, *Rec. IV*, 211.squarehead, experiments, *Rec. IX*, 553.stalks, internodes, *Rec. V*, 539.

stem—

- disease, notes, *Rec. XII*, 261.
- eel worm, *Rec. X*, 165.
- maggot, *Rec. IX*, 150; *X*, 164.
- maggot, notes, *Rec. II*, 5, 80; *III*, 197, 223, 359, 860, 889; *VIII*, 146, 156, 802; *IX*, 150; *X*, 164; *XI*, 264, 862, 955, 957.
- sawfly, *Rec. IX*, 855.
- sawfly, description and treatment, *Rec. III*, 889.
- sawfly, notes, *Bul. 2*, I, 166; *Rec. III*, 546; *XI*, 862, 955; *XII*, 368.

straw—

- analyses, *Rec. III*, 41; *IV*, 733; *V*, 631; *VI*, 569, 752, 1008.
- as litter, *Rec. V*, 144.
- composition, *Rec. V*, 145; *IX*, 981.
- digestibility, *Bul. 2*, I, 132.
- fertilizing constituents, *Bul. 2*, I, 133.
- fuel value, *Rec. XII*, 1072.
- gum in, *Rec. V*, 145.
- hay, oats, and beans, digestibility, *Rec. IV*, 976.
- nutritive value, *Rec. XI*, 73.
- productive value, *Rec. XI*, 771.
- water in, *Rec. V*, 145.
- worm, description and treatment, *Rec. III*, 889.
- worm, notes, *Rec. II*, 80; *IV*, 285, 667.

studies, *Rec. VIII*, 659; *X*, 418.subsoiling, *Rec. IX*, 346; *XII*, 628.subsoiling v. surface plowing, *Rec. VIII*, 594; *X*, 142.suggestions to growers, *Rec. I*, 207.sulphate of ammonia v. nitrate of soda for, *Rec. V*, 233; *X*, 848.sulphate of potash for, *Rec. V*, 712.

summer—

- assimilation of carbonic acid by, *Rec. IV*, 613.
- varieties, *Rec. IX*, 834.

supply—

- and prices, *Rec. VII*, 341.
- of the world, *Rec. XI*, 444.

surface v. subwatering, *Rec. XII*, 325.*Tenebroides mauritanicus* in, *Rec. X*, 769.

testing—

- by chemical methods, *Rec. XI*, 1100.
- milling qualities, *Rec. X*, 349.

Wheat—Continued.

thief, notes, *Rec. V*, 398.thrashing experiments, *Rec. VIII*, 123.thrips, notes, *Rec. III*, 860; *IV*, 839.tillering, *Rec. XI*, 734.top-dressing, *Rec. IX*, 1047.

top-dressing—

- v. plowing under manure, *Rec. XII*, 639
- with plaster, *Rec. III*, 224.

- varieties, *Bul. 2*, I, 24, 70, 104; *Bul. 2*, II, 21, 39, 40, 111, 123, 147; *Rec. I*, 69, 75, 122, 143, 148, 188, 206, 210, 214, 218, 254, 289; *II*, 4, 6, 7, 29, 70, 132, 172, 213, 220, 227, 240, 250, 287, 300, 315, 326, 336, 351, 395, 520, 606, 655, 663, 675, 728; *III*, 82, 85, 128, 167, 199, 215, 225, 227, 243, 356, 360, 361, 387, 404, 453, 510, 514, 536, 590, 599, 625, 703, 719, 743, 785, 802, 806, 875; *IV*, 35, 38, 39, 108, 145, 251, 340, 342, 345, 408, 411, 436, 500, 647, 649, 721, 724, 823, 824, 914, 991; *V*, 48, 50, 177, 185, 234, 332, 347, 495, 576, 577, 583, 679, 712, 867, 869, 870, 871, 877, 881, 898, 1073, 1074; *VI*, 44, 141, 216, 293, 296, 412, 413, 415, 416, 417, 418, 419, 538, 539, 543, 635, 719, 722, 806, 807, 809, 828; *VII*, 31, 118, 119, 120, 121, 203, 209, 210, 298, 299, 394, 579, 580, 581, 763, 764, 859, 861, 951, 952, 953; *VIII*, 123, 222, 224, 305, 307, 308, 402, 489, 492, 588, 594, 689, 777, 884; *IX*, 131, 132, 346, 347, 553, 639, 741, 829, 830, 832, 833, 1047; *X*, 41, 142, 148, 236, 239, 244, 246, 340, 547, 632, 633, 634, 735, 836, 842, 846, 847, 945, 956, 1034, 1036; *XI*, 42, 43, 241, 331, 339, 341, 410, 442, 540, 639, 731, 834, 842, 1032, 1036, 1037; *XII*, 47, 230, 339, 430, 629, 639, 642, 842, 847, 848, 849, 943, 1031, 1034, 1035, 1039.

varieties—

degeneration of, *Rec. IV*, 344.hybrid, notes, *Rec. X*, 749; *XII*, 339.identical, *Bul. 2*, I, 30.in France, *Rec. VI*, 296; *VII*, 300; *VIII*, 781.viability, *Rec. XI*, 158.vitality. (*See* WHEAT, GERMINATION.)volume weight as a means of judging quality, *Rec. IX*, 834.

v. barley—

and oats for cows, *Rec. VIII*, 256.for pigs, *Rec. VI*, 663; *XI*, 69.v. buckwheat for pigs, *Rec. VIII*, 921.corn-and-cob meal for steers, *Rec. VIII*, 811.

v. corn for—

feeding, *Rec. IX*, 799.pigs, *Rec. VI*, 466; *VII*, 52, 122, 241, 248; *VIII*, 919.poultry, *Rec. XII*, 279.v. cotton-seed cake, rye, and potatoes for steers, *Rec. VIII*, 822.maize, nutritive value, *Rec. VII*, 891.mixed grain for pigs, *Rec. IX*, 872.peas, corn, and barley for pigs, *Rec. VI*, 569.rye bread, *Rec. XI*, 183.

v. wheat bran for—

animals, *Rec. VI*, 1011.pigs, *Rec. V*, 227.v. whole-wheat bread, dietetic value, *Rec. XI*, 672.

water—

absorption by gluten of, *Rec. VIII*, 514; *IX*, 480.requirement, *Rec. XII*, 627.

Wheat—Continued.

- weed seeds in, *Rec. XII*, 248.
- weight—
 - of grain, *Rec. VI*, 301.
 - per bushel, *Rec. III*, 512.
- whole, analyses, *Rec. V*, 856.
- winter—
 - acreage and yield in Iowa, *Rec. XII*, 639.
 - at Capelle Station, *Rec. V*, 436.
 - biology, *Rec. XI*, 28.
 - conversion to summer wheat, *Rec. XI*, 1038.
 - culture, *Rec. IX*, 132.
 - culture experiments, *Rec. VIII*, 308.
 - drilling *v.* broadcasting, *Rec. X*, 239.
 - fertilizer experiments, *Rec. V*, 623.
 - fractional application of nitrate of soda for, *Rec. IV*, 210.
 - green manuring, *Rec. X*, 239.
 - harvesting at different dates, *Rec. X*, 240.
 - in Russian Poland, *Rec. VI*, 141.
 - lodging, *Rec. VI*, 414.
 - milling qualities, *Rec. XII*, 640.
 - parasite, *Rec. X*, 452.
 - report on condition of, *Rec. II*, 749.
 - seed selection, *Rec. X*, 239.
 - seeding at different dates, *Rec. X*, 239.
 - seeding at different rates, *Rec. X*, 239.
 - varieties, *Rec. V*, 623, 625; *VI*, 414, 416, 419, 809; *VII*, 300, 394, 579, 671; *VIII*, 305, 490, 971; *X*, 148, 239, 536; *XI*, 629, 633; *XII*, 328, 531, 640.
 - with sand vetch for soiling, *Rec. V*, 256.
- wireworm, notes, *Rec. II*, 80; *III*, 450; *IV*, 254, 839.
- with oats, *Rec. IV*, 145.
- yield—
 - and value, *Rec. II*, 608.
 - as affected by size of seed, *Rec. IX*, 553.
 - affected by weather, *Rec. III*, 926.
 - decline in, *Rec. II*, 214.
 - in Great Britain, *Rec. III*, 835.
 - the United States, *Rec. III*, 326.
 - on different soils, *Rec. IV*, 341.
 - large and small plats, *Rec. II*, 251.
 - per acre, *Rec. III*, 35, 527; *IV*, 408, 431.

Wheatland farm, location, *Rec. V*, 568.

Wheats—

- Hungarian and macaroni, introduction, *Rec. XII*, 698.
- macaroni, *Rec. XII*, 144.
- macaroni, in Australia, *Rec. XI*, 481.

Wheel bugs, notes, *Rec. V*, 499.

Whey—

- analyses, *Rec. III*, 48; *IV*, 486, 947; *V*, 85, 210; *XI*, 313.
- and bran *v.* skim milk and corn meal for pigs, *Rec. IX*, 870.
- bacteria in, *Rec. V*, 208, 1047.
- butter, *Rec. VII*, 69; *IX*, 494.
- butter—
 - analyses, *Rec. X*, 790.
 - manufacture, *Rec. X*, 1096.
- cake, *Rec. V*, 1067.
- composition, *Rec. V*, 895, 957; *VII*, 160.
- feeding value, *Rec. III*, 48; *IV*, 187.
- food value, *Rec. X*, 74.

Whey—Continued.

- for fattening animals, *Rec. V*, 439.
- pigs, *Rec. III*, 48; *X*, 73, 176; *XI*, 71.
- sweet for calves, *Rec. VIII*, 1006.
- sweet *v.* sour for pigs, *Rec. IX*, 477; *X*, 277.
- test for detecting adulteration of milk, *Rec. V*, 354.
- utilization of, *Rec. V*, 1067; *VII*, 339; *X*, 91.
- vinegar, *Rec. V*, 1067.
- v.* skim milk for pigs, *Rec. XI*, 71.
- turnips for pigs, *Rec. VI*, 243; *VII*, 243.
- Whip scorpion, death due to, *Rec. III*, 812.
- Whirlwinds in New Brunswick, *Rec. XII*, 1015.
- White ants. (*See* TERMITES.)
- White arsenic as an insecticide, *Rec. II*, 747.
- White ash, notes, *Rec. III*, 522.
- White borer, notes, *Rec. VII*, 593.
- White cedar as host of Gymnosporangium, *Rec. II*, 711.
- White clover. (*See* CLOVER, WHITE.)
- White devil, notes, *Rec. III*, 893.
- White durra, culture experiments, *Rec. V*, 39; *VI*, 542.
- White elm, notes, *Rec. II*, 512, 663, 741; *III*, 52, 788.
- White ermine moth, notes, *Rec. VIII*, 806; *IX*, 370; *X*, 273; *XI*, 471, 952.
- White fly— (*See also* ALEURODES.)
 - notes, *Rec. VI*, 235; *IX*, 74; *XII*, 1058.
 - tobacco smoke for, *Rec. XII*, 146.
- White-footed mouse, louse of, *Rec. II*, 609.
- White fringe slug, notes, *Rec. II*, 81.
- White-fronted heron, *Rec. X*, 93.
- White grubs. (*See* JUNE BEETLES.)
- White hellebore, analyses, *Rec. VIII*, 416.
- White-horned Urocerus, notes, *Rec. X*, 1066.
- White insect wax, *Rec. VII*, 596.
- White louse. (*See* CHIONASPIS CITRI.)
- White lupine seed, alkaloids in, *Rec. V*, 252.
- White mellilot. (*See* SWEET CLOVER.)
- White mold, notes, *Rec. IV*, 51.
- White mustard. (*See* MUSTARD, WHITE.)
- White Nile River, value to Egypt, *Rec. XI*, 826.
- White oak. (*See* OAK, WHITE.)
- White owl, notes, *Rec. X*, 521.
- White pine. (*See* PINE, WHITE.)
- White rabbit, notes, *Rec. VII*, 929.
- White rot, notes, *Rec. XI*, 173.
- White sage, notes, *Rec. X*, 343; *XI*, 1034.
- White Siberian almond, notes, *Rec. III*, 788.
- White spruce. (*See* SPRUCE, WHITE.)
- White top grass, notes, *Rec. X*, 343.
- White weed, coefficients of digestibility, *Bul. 2*, *II*, 54.
- White winged—
 - bibio, notes, *Rec. IV*, 204.
 - fly, notes, *Rec. VI*, 649.
- White yarrow, double, notes, *Rec. IV*, 653.
- Whitewash, notes, *Rec. III*, 893.
- Whitewash for rose chafer, *Rec. III*, 97.
- Whitewashing with a spraying pump, *Rec. V*, 875.
- Whitewood, notes, *Rec. IV*, 654.
- Whortleberries, analyses, *Rec. IV*, 59.
- Wiborgh phosphate, *Rec. XI*, 230, 331; *XII*, 1036.
- Wiesbaden, Germany, Experiment Station, report, *Rec. III*, 265.
- Wild—
 - barley. (*See* SQUIRREL-TAIL GRASS.)
 - cherry. (*See* CHERRIES.)

Wild—Continued.

oats, analyses, *Rec. II*, 487.rice. (*See* RICE, WILD.)

rice grass—

analyses, *Rec. II*, 487; *V*, 64.notes, *Rec. II*, 487.rye grass. (*See* RYE, WILD.)Willow— (*See also* SALIX.)almond, notes, *Rec. III*, 521.aphis, remedies, *Rec. XI*, 558.basket, culture experiments, *Rec. XI*, 458.beaked, notes, *Rec. III*, 521.black, notes, *Rec. III*, 521.diamond, notes, *Rec. III*, 521.dwarf, notes, *Rec. III*, 521.fungus destroying, notes, *Rec. XI*, 467.golden Russian, notes, *Rec. IV*, 655; *VIII*, 604.

grove—

melanoxanthus, notes, *Rec. II*, 673.plant-louse, notes, *Bul. 2*, *II*, 119; *Rec. II*, 253; *III*, 176.hedges as shelter belts, *Rec. XII*, 629.herb, analyses, *Rec. IV*, 971, 972.laurel-leaved, notes, *Rec. IV*, 655.leaf beetles, notes, *Rec. V*, 206; *VIII*, 905; *IX*, 160, 862.linna, notes, *Rec. II*, 116.Napoleon, notes, *Rec. IV*, 655.oak, *Rec. IX*, 652.

osier—

culture, *Rec. VIII*, 605.fertilizer experiments, *Rec. XII*, 153.history and value, *Rec. IX*, 757.species, *Rec. III*, 703.parasites, *Rec. X*, 633.

plant-louse—

spotted, notes, *Rec. II*, 253.toothed, notes, *Rec. II*, 253.prairie, notes, *Rec. III*, 521.rosemary, notes, *Rec. III*, 788.royal, notes, *Rec. IV*, 655.

Russian—

growth from cuttings, *Bul. 2*, *II*, 88; *Rec. I*, 93, 232.notes, *Rec. II*, 340, 741.varieties, *Bul. 2*, *II*, 87.sand-bar, notes, *Rec. III*, 521.

sawfly—

large, notes, *Rec. I*, 120, 232.notes, *Rec. II*, 664; *V*, 206, 631.sharp-leaved, notes, *Rec. XII*, 559.shining, notes, *Rec. III*, 521.slug, yellow-spotted, notes, *Bul. 2*, *II*, 92; *Rec. I*, 21, 232; *II*, 116.stem louse, *Rec. X*, 164.timber, value, *Rec. VIII*, 891.

trees—

abnormal growths, *Rec. XI*, 556.at Illinois Station, *Rec. V*, 303.

weeping—

American, notes, *Rec. IV*, 655.Kilmarnock, notes, *Rec. IV*, 655.Wisconsin, notes, *Rec. IV*, 655.weevil, mottled, notes, *Rec. XII*, 1062.white, notes, *Rec. II*, 741; *IV*, 655; *VIII*, 604.

Willows—

arborescent, notes, *Rec. VII*, 775.attacked by *Glaucosporium salicis*, *Rec. XI*, 1061.

Willows—Continued.

cross-fertilization, *Rec. X*, 23.culture, *Rec. VI*, 222, 427; *VIII*, 315, 891; *IX*, 142.for basket making, *Rec. X*, 643.protection of streams, *Rec. VII*, 508, 775.growth, *Rec. IX*, 562.hybridity, *Rec. VI*, 301.insects affecting, *Rec. I*, 232.notes, *Rec. IV*, 655; *VI*, 427; *VII*, 586.varieties, *Rec. II*, 372, 392, 741; *V*, 129; *VI*, 222.v. bamboos for ornamental gardening, *Rec. VII*, 688.

Willughbeia—

firma, notes, *Rec. XII*, 346.*tenusfolia*, notes, *Rec. XII*, 347.

Wind—

amount of force utilized by windmills, *Rec. XI*, 129.and chimney draft, *Rec. VII*, 474.cloud movement in Minnesota, *Rec. IX*, 424.clouds, *Rec. IX*, 814.the rain gauge, *Rec. XI*, 819.as a motive power, *Rec. IX*, 122, 295.at Montpellier, *Rec. XII*, 122.barometer table, *Rec. IX*, 424, 426.

breaks—

effect on evaporation, *Rec. XI*, 324.effect on fruit plantation, *Rec. I*, 276.effect on fruit production, *Rec. IX*, 354.planting, *Rec. VII*, 134.treatise, *Rec. XII*, 451.trees for, *Rec. I*, 276; *VI*, 56; *VII*, 508.use and value, *Rec. III*, 807.value, *Bul. 2*, *II*, 94.deposits, composition, *Rec. X*, 619.direction, vertical gradients, *Rec. XI*, 621.distribution of seeds, *Rec. VII*, 36; *X*, 553.

effect on—

catch of rainfall, *Rec. XI*, 620, 818.nitrogen content of rain, *Rec. X*, 827.soil, *Rec. XII*, 526.soils in Iceland, *Rec. VII*, 475.trees, *Rec. IX*, 453.

force—

as related to altitude, *Rec. XI*, 820.measurement, *Rec. VIII*, 675.injuring grapes, *Rec. XI*, 59.maximum pressure, *Rec. XII*, 119.measurement, *Rec. X*, 419.nomenclature, *Rec. IX*, 30.origin of descending gusts, *Rec. IX*, 531, 814.power machines, regulation, *Rec. IV*, 695.recording apparatus, new, *Rec. XII*, 1018.resultant, calculation, *Rec. XI*, 621.roses for Oklahoma, *Rec. XII*, 119.rush of September 29, 1896, *Rec. VIII*, 675.signals on the Great Lakes, *Rec. VII*, 21.vanes, *Rec. XI*, 127.velocity and force, *Rec. XI*, 432.

Windmills—

amount of force of wind utilized, *Rec. XI*, 129.and farmers' tools, efficiency, *Rec. VII*, 474.meteorology, *Rec. VI*, 621.annual work, *Rec. XI*, 897.calculation of work done, *Rec. X*, 695.efficiency, *Rec. IX*, 424.

Windmills—Continued.

- for irrigation, *Rec. VI*, 485; *IX*, 796; *XI*, 195.
- gardening, *Rec. VI*, 56; *VIII*, 497.
- homemade, in Nebraska, *Rec. XI*, 896; *XII*, 694.
- notes, *Rec. VII*, 164.
- studies, *Rec. X*, 195.
- tests, *Rec. IX*, 396.

Winds—

- and currents, Broun's law, *Rec. X*, 326.
- rains, how they spread epidemics, *Rec. VII*, 845.
- descending, warm, *Rec. VII*, 474.
- injurious to vegetation and crops, *Rec. VI*, 695.
- local, not tornadoes, *Rec. XI*, 620.
- protection of soils from, *Rec. VI*, 622; *VIII*, 298.
- researches on movement in France, *Rec. XI*, 129.
- resultant and prevailing, *Rec. IX*, 531, 815.
- variations in Montpellier, *Rec. IX*, 1033.

Wine—

- acarids, *Rec. IX*, 895.
- and must—
 - addition of acids to, *Rec. V*, 735.
 - precipitation of lead from, *Rec. VI*, 375.
- and sulphuring, *Rec. V*, 928.
- apples, analyses of juices, *Rec. VI*, 110.
- bitterness caused by ferments, *Rec. XI*, 715.
- boiled, analyses, *Rec. IX*, 1095.
- by-products, methods of analysis, *Rec. V*, 215.
- casks and vats, thermometer for, *Rec. VIII*, 106.
- cellars, *Rec. XII*, 648.
- cellars, experimental, *Rec. IV*, 238.
- Culture Congress—
 - at Heilbroun, meeting, *Rec. VIII*, 496.
 - Montpellier, report, *Rec. V*, 824.
- current, use of yeast in making, *Rec. XII*, 795.
- diseases—
 - action of antiseptics, *Rec. VI*, 170.
 - ferments, *Rec. X*, 123, 1016; *XI*, 715.
 - infectious, *Rec. VII*, 993.
 - treatment, *Rec. X*, 396.
- discoloration, *Rec. IX*, 1095.
- disorders, bacteria of, *Rec. XI*, 652.
- effect on pepsin digestion, *Rec. VI*, 931.
- extract, estimation, *Rec. IV*, 989.
- fermentation—
 - studies, *Rec. IX*, 120; *XI*, 126.
 - temperature, *Rec. IX*, 696, 894, 1095.
 - use of pure yeasts, *Rec. XII*, 794.
- ferments, *Rec. V*, 735; *X*, 1015, 1017.
- from raisins, *Rec. IX*, 696.
- fruit, filtration, *Rec. XI*, 157.
- grape, substitutes, *Rec. IX*, 696.
- grapes—
 - for, *Rec. II*, 536; *V*, 190.
 - Italian, notes, *Rec. VI*, 722.
 - varieties, *Rec. VI*, 902.
- Growers' Congress in Germany, *Rec. XI*, 698.
- lees, origin, *Rec. VII*, 72.
- making, *Rec. VII*, 36; *XI*, 293; *XII*, 151, 693.
- making—
 - as affected by temperature, *Rec. VII*, 257.
 - at California Station, *Rec. V*, 190.
 - control of fermentation by chloroform, *Rec. XII*, 195.

Wine—Continued.

making—continued.

- directions, *Rec. VII*, 770.
 - experiments, *Rec. VI*, 942.
 - from small berries, *Rec. IX*, 696.
 - fungi in, *Rec. V*, 449.
 - in Algeria, *Rec. V*, 824; *VI*, 250; *XII*, 854.
 - Algeria and Tunis, *Rec. XII*, 196.
 - Aude, *Rec. IX*, 196, 696.
 - California, *Rec. III*, 326.
 - France, *Rec. V*, 824, 1102.
 - hot climates, *Rec. XII*, 795.
 - Italy, *Rec. V*, 328.
 - Oran, *Rec. XII*, 196.
 - Prussia, *Rec. V*, 350.
 - Pyrénées-Orientales, *Rec. VII*, 163.
 - Russia, *Rec. X*, 255, 355, 396; *XII*, 196, 795.
 - southern regions, *Rec. IX*, 196.
 - the United States, *Rec. II*, 537.
 - new process, *Rec. XII*, 195.
 - pure cultures in, *Rec. XI*, 126.
 - report of Bessarabia Experiment Station, *Rec. X*, 396.
 - residue, feeding value, *Rec. XI*, 883; *XII*, 587.
 - residue, utilization, *Rec. V*, 130; *VI*, 942.
 - selection of grapes for, *Rec. V*, 190; *VIII*, 981, 982.
 - sterilization of grape juice, *Rec. XII*, 195.
 - studies, *Rec. IX*, 696, 1095.
 - yeasts, *Rec. IV*, 873; *V*, 928; *VI*, 251; *VII*, 719; *IX*, 696, 895; *X*, 96; *XI*, 126; *XII*, 195, 794.
 - marc, utilization, *Rec. VI*, 170.
 - micro-organisms, *Rec. X*, 224, 1016.
 - micro-organisms—
 - as affected by antiseptics, *Rec. XI*, 126.
 - of spoiled, *Rec. X*, 1016.
 - muddy, oxidizing ferment, *Rec. VIII*, 960.
 - must, apparatus for cooling, *Rec. IX*, 894.
 - nitrogen content, *Rec. X*, 315, 515.
 - progress in chemistry of, *Rec. IV*, 389.
 - quality as affected by—
 - alum, *Rec. VII*, 271.
 - copper fungicides, *Rec. XII*, 574.
 - different cuttings, *Rec. XI*, 1049.
 - different wine yeasts, *Rec. III*, 832.
 - fertilizers, *Rec. VII*, 36, 772.
 - irrigation of vines, *Rec. XI*, 745.
 - removal of acids, *Rec. IX*, 196.
 - solids, *Rec. IV*, 616.
 - solubility of red coloring matter, *Rec. IX*, 25.
 - soluble oxidizing ferment, *Rec. IX*, 120.
 - sulphurous acid in, *Rec. VI*, 615.
- Wineberries—
- notes, *Rec. IV*, 916, 917; *VI*, 142; *IX*, 354; *XI*, 252.
 - varieties, *Rec. V*, 190; *VII*, 405.
- Wineberry, Japanese—
- culture experiments, *Rec. IV*, 651; *VIII*, 496; *IX*, 50.
 - notes, *Rec. VII*, 771; *XI*, 150.
 - varieties, *Rec. VII*, 405; *VIII*, 407.
- Wines—
- acid constituents, *Rec. V*, 728; *VI*, 377; *VII*, 463.
 - acid content, *Rec. IV*, 616.
 - acid content, decreasing, *Rec. IX*, 196.

Wines—Continued.

- adulteration, Rec. VI, 377.
- aerometric analysis, Rec. VI, 614.
- after fermentation in bottles, Rec. VII, 659.
- aging, Rec. V, 350.
- alcohol content as affected by culture of the grape, Rec. XI, 648.
- American, compiled analyses, Rec. XII, 994.
- ammonia in, Rec. IX, 419.
- analyses, *Bul.* 2, I, 173; Rec. II, 315; IV, 869, 984, 989; V, 350; VI, 190, 377, 868; VII, 708; IX, 521; X, 413, 780; XI, 314; XII, 79.
- analysis with Fehling's solution, Rec. VI, 615, 869.
- and food materials, recent work in, Rec. VIII, 105.
- anilin colors in, Rec. VI, 612.
- antiseptic abtastol in, Rec. V, 735.
- aroma as affected by grape leaves, Rec. XII, 996.
- artificial coloring, Rec. XI, 294.
- ash analyses, Rec. XI, 214.
- bad, study, Rec. X, 195.
- California, Rec. VI, 345.
- chemical analysis, Rec. IX, 918.
- coloring matter, Rec. V, 1097; VI, 965; VIII, 562, 563.
- coloring matters, effect on fermentation, Rec. IX, 696.
- comparison, Rec. IX, 196.
- composition and classification, Rec. VIII, 981.
- conservation, Rec. II, 99.
- conservation and public health, Rec. VI, 345.
- copper content, Rec. II, 32.
- cream of tartar in, Rec. IX, 419.
- date and fig, Rec. VI, 869.
- determination of—
 - alum, Rec. VII, 362.
 - ash, Rec. VI, 377.
 - dry matter, Rec. XII, 716.
 - extract, Rec. IV, 984; VI, 613.
 - fixed and volatile acids in, Rec. III, 751.
 - glycerin, Rec. III, 924; IV, 389, 616; VI, 613; VII, 363; IX, 196, 419.
 - lactic acid, Rec. VIII, 562.
 - leucomains in, Rec. XI, 23.
 - mannite, Rec. VI, 869; VII, 363.
 - reducing sugars, Rec. XI, 509.
 - saccharose, Rec. IV, 984; IX, 1024.
 - succinic acid in, Rec. VIII, 562.
 - sucrose in, Rec. IX, 225.
 - sulphuric acid, Rec. X, 412.
 - tannin, Rec. VI, 613, 775; VII, 363, 558.
- effervescent, manufacture, Rec. XI, 157.
- electricity for aging and conserving, Rec. V, 214.
- endiometric method for determination of acidity, Rec. XI, 618.
- examination, Rec. VI, 190; VII, 463; XI, 970.
- fluorin in, Rec. XI, 813.
- from grapes grown on alkali soils, Rec. XII, 995.
- fruit—
 - and berry, Rec. VII, 364.
 - tannin, Rec. VI, 613.
- German, chemical study, Rec. V, 441.
- glucose for improving, Rec. V, 441.

Wines—Continued.

- glycerin content, Rec. III, 924; IV, 389, 616; VI, 613; VII, 363; IX, 196, 419.
- glycerol in, Rec. VI, 374; VII, 363.
- gum, Rec. VII, 530.
- Hungarian, examination, Rec. VIII, 537.
- lactic acid in, Rec. VIII, 562; X, 1017.
- local, acidity, Rec. VII, 463.
- loss of coloring matter by keeping, Rec. IV, 616.
- mannite content, Rec. V, 440; VI, 503, 869; VII, 363; IX, 419.
- "mannited," examination, Rec. V, 440, 1102.
- mannitic fermentation, Rec. VI, 251; XI, 126.
- methods of—
 - analysis, Rec. V, 127; XII, 1007.
 - analysis in Austria, Rec. V, 511.
- Moselle, examination, Rec. VII, 530.
- natural—
 - analyses, Rec. IV, 389.
 - glycerin and alcohol in, Rec. V, 824.
- nitric acid in, Rec. VIII, 562.
- of Apulia, chemical composition, Rec. V, 929.
- Hérault, Rec. XII, 648.
- Moscato di Canelli, composition, Rec. V, 735.
- New South Wales, chemical nature, Rec. VII, 809.
- Oklahoma, analyses, Rec. XII, 693.
- Tunis, analyses, Rec. XII, 196.
- oxydase, Rec. VIII, 954; IX, 924.
- ozone for aging and conserving, Rec. V, 214.
- pasteurization, Rec. II, 99; V, 214; XI, 126.
- phosphoric acid in, Rec. VI, 868; VII, 271; VIII, 458, 562.
- potassium bitartrate in, Rec. VIII, 667; IX, 521.
- potassium sulphate in, Rec. VII, 18, 184.
- preservation, Rec. V, 190, 214.
- racking, Rec. VII, 719.
- recent investigations, Rec. XI, 882.
- salicylic acid in, Rec. VI, 868; VII, 91, 184, 186; IX, 419.
- Samoa, composition, Rec. VII, 530.
- Sicilian, analyses, Rec. VI, 221; IX, 696.
- souring, investigations, Rec. VII, 257.
- sterilization of, Rec. II, 99; V, 214.
- still, addition of carbonic acid, Rec. VIII, 348.
- sulphuric acid in, Rec. V, 350; VI, 615; VII, 530.
- sulphuring of, Rec. V, 928.
- sweet—
 - adulteration, Rec. VI, 615.
 - determination of phosphoric acid in, Rec. VI, 868.
 - dextrose and levulose in, Rec. VI, 868; VII, 91.
 - medicinal, examination, Rec. VI, 377.
 - polarimetric investigations, Rec. V, 440; X, 117.
- Swiss, investigations, Rec. VI, 615.
- tartaric acid in, Rec. IX, 521.
- Valpantena, ferments, Rec. VII, 530.
- Victoria, alcohol content, Rec. VI, 375.
- volatile acids in, Rec. VII, 185; XI, 23.
- white—
 - anilin colors in, Rec. VIII, 742.
 - from red grapes, Rec. IX, 1095; XII, 195.

Wing stem, analyses, Rec. III, 629.

Winged—

fruits and seeds, anatomy, Rec. IX, 329.

pigweed, notes, Rec. IV, 699.

Winter—

barograph curve from South Pacific Ocean, Rec. IX, 814, 817.

cross, notes, Rec. IX, 143.

fat, notes, Rec. VIII, 306; X, 343.

gardening, Rec. IX, 840.

grain, varieties, Rec. X, 750.

moth, notes, Rec. VII, 307.

pasture, crops for, Rec. IX, 1048.

Wintergreen oil in plants, Rec. VI, 873.

Winterkilling of—

grains, Rec. IX, 749.

trees and shrubs, Rec. V, 682.

Winters—

change, Rec. X, 1018.

severe; benefits, Rec. XI, 222.

Winthemia quadripustulata, notes, Rec. IX, 365; XI, 62; XII, 364.

"Winton" disease, notes, Rec. XI, 995.

Wire—

grass—

analyses, Rec. II, 491; III, 629; VI, 403.

as a forage plant, Rec. VIII, 596.

culture experiments, Rec. I, 282.

notes, Rec. II, 597.

root system, Rec. IV, 47.

netting for peas, Rec. V, 827.

trellis for hops, description, Rec. V, 206.

use in kite flying, Rec. IX, 424.

woven, for fences, Rec. X, 196.

Wireworm in the burrow of an apple-tree borer, Rec. VI, 440.

Wireworms—

as affected by—

drought, Rec. V, 348.

kainit, Rec. III, 449; IV, 716; XI, 472.

mustard dross, Rec. XI, 767.

description, Rec. III, 889.

experiments with, Rec. II, 502; III, 447.

fall plowing for destruction, Rec. III, 449.

fertilizers as insecticides, Rec. III, 449.

fungus diseases, Rec. III, 448.

insecticides for, Rec. II, 415, 503; III, 447.

investigations, Rec. III, 811.

iron sulphate for, Rec. III, 448.

kerosene emulsion for, Rec. III, 448.

kerosene for, Rec. III, 448.

notes, Bul. 2, I, 166; Rec. I, 45; II, 269; III, 46, 784, 792; VI, 65, 314, 317, 654, 917; VII, 700, 879; VIII, 612, 1003; IX, 664, 967; X, 168, 1061; XI, 66, 955; XII, 1060.

on hops, Rec. V, 236.

onions and celery, Rec. IV, 284.

remedies, Rec. III, 447, 448, 812, 889; IV, 873; VIII, 143, 807; XI, 562; XII, 997.

starvation by—

clean fallow, Rec. III, 448.

growing buckwheat, Rec. III, 448.

growing mustard, Rec. III, 448.

growing rape, Rec. III, 448.

trapping, Bul. 2, I, 169; Rec. III, 450.

Wistaria, notes, Rec. IV, 656.

Witch grass—

analyses, Bul. 2, II, 51; Rec. VI, 403; VII, 155.

digestibility, Bul. 2, II, 55.

digestibility of protein in, Bul. 2, II, 61.

effect on corn production, Rec. XII, 432.

notes, Rec. XI, 354.

root system, Rec. IV, 46.

Witch hazel, notes, Rec. III, 522.

Witches' broom of *Pinus sylvestris*, Rec. XI, 469.

Witches' brooms—

notes, Rec. VIII, 895; XII, 463, 658.

on cherry trees, Rec. VII, 225; IX, 56.

Woad as a forage plant, Rec. VI, 140; VII, 209.

Woburn Experimental Farm, Rec. VII, 308; IX, 199, 447; X, 749.

Wolfberry, notes, Rec. III, 522.

Woman's milk. (See MILK, HUMAN.)

Wood— (See also FORESTRY and TIMBER.)

and bark of trees, ash analyses, Rec. V, 256.

markings of the year's growth, Rec. VI, 223.

ashes. (See ASHES.)

black holes in, Rec. V, 1078.

borer, notes, Rec. IV, 284.

dead—

effect of removal on forest growth, Rec. IX, 53.

in forests, clearing away, Rec. VI, 144.

decortication as affecting mechanical properties, Rec. V, 731.

distribution of tannin in, Rec. VII, 962.

fireproofing for building purposes, Rec. XII, 456.

fuel value, Rec. V, 129.

fungi—

destroying, Rec. X, 415, 1055; XII, 219.

frequenting, biology, Rec. XI, 322, 516.

grass—

analyses, Rec. VI, 403.

Mexican analyses, Rec. VI, 403.

growth, physiology, Rec. VII, 188; VIII, 204.

gum—

composition, Rec. VII, 832.

determination in birch, Rec. X, 716.

determination in peach stones, Rec. X, 716.

ester-like compounds, Rec. VI, 966.

hydrolysis with hydrochloric acid, Rec. IV, 516.

in conifers, extraction, Rec. X, 716.

different woods, Rec. VI, 754.

the strawberry, Rec. X, 716.

hair grass—

analyses, Rec. IV, 769, 770.

value for forage in Sweden, Rec. IV, 771.

insect injuries, Rec. V, 991, 1019; VI, 488.

leopard moth, notes, Rec. VI, 649, 651; VII, 696; IX, 67; X, 457; XI, 564.

liter question, Rec. V, 927.

meadow grass as a forage plant, Rec. III, 29, 51.

meal as a feeding stuff, Rec. V, 822, 916.

miners, notes, Rec. XI, 763.

nymph, beautiful, notes, Rec. III, 197.

of *Albizzia molucana*, anatomy, Rec. VI, 279.

Wood—Continued.

- of Canadian trees and small fruits, analyses, Rec. IX, 435.
- Pomaceæ, studies, Rec. VIII, 28.
- southern pines, structure, Rec. VIII, 604; XI, 1050.
- spotted gum for paving, Rec. VII, 961.
- optical properties, Rec. V, 925.
- pea, culture experiments, Rec. III, 703.
- preservation, Rec. X, 965.
- preservation, history, Rec. IX, 452.
- protection against insects, Rec. V, 991, 1019; XII, 1064.
- pulp—
 - for paper manufacture, Rec. V, 261; X, 356; XII, 563.
 - supply and forestry, Rec. X, 52.
 - supply and spruce forests, Rec. VIII, 136.
 - uses, Rec. XII, 996.
- pulverized, as feeding stuff, Rec. V, 822.
- rings, as related to anatomical structure, Rec. V, 820.
- seasoning, Rec. I, 110.
- seasoning by electricity, Rec. XI, 855.
- solar prints, Rec. VI, 56.
- sugar. (See XYLOSE.)
- technical properties, Rec. VII, 871.
- tick, notes, Rec. XI, 173, 588.
- uses, Rec. IX, 597.

Woodchucks—

- carbon bisulphid for, Rec. VII, 929.
- destruction, Rec. X, 521.

Wooden ties, preservation, Rec. VII, 164; XI, 1052.

Woodlands—

- and windbreaks as protection against winds, Rec. VIII, 891.
- care, Rec. VII, 870; IX, 844.
- Crown, of Great Britain, Rec. X, 443.
- draining, Rec. VIII, 315.
- mixed plantations, Rec. IX, 53.
- planting, Rec. VII, 508.
- reforestation, Rec. VII, 776.
- summer operations, Rec. VI, 223.

Woodpecker—

- downy, economic relations, Rec. XII, 423.
- green, insectivorous habits, Rec. XII, 424.
- hairy, economic relations, Rec. XII, 423.

Woodpeckers—

- destroying timber, Rec. IX, 962.
- food of, Rec. VII, 470; IX, 230.
- notes, Rec. V, 450; XI, 428.
- tongues, Rec. VII, 470.

Woods—

- American—
 - mechanical tests, Rec. IX, 294.
 - Swiss market, Rec. VII, 135.
- description and use, Rec. XI, 1050.
- dry rot due to *Merulius lacrymans*, Rec. V, 821.
- heating power of different kinds, Rec. XI, 854.
- of Alabama, Bul. 2, I, 22; Rec. I, 4.
- Utah, fuel value, Rec. III, 625.

Wool—

- combings, analyses, Rec. X, 426.
- exhibit—
 - at World's Columbian Exposition, Rec. III, 755.

Wool—Continued.

- exhibit—continued.
 - of New South Wales at Chicago Exposition, Rec. VI, 486.
- fat preparation, for use in sugar manufacture, Rec. VII, 163.
- fiber—
 - effect of food on, Rec. III, 471.
 - structure, Rec. IV, 989.
- growing in the United States, statistics, Rec. III, 904.
- growth as affected by different rations, Rec. IV, 183.
- measurements, Rec. III, 471.
- production—
 - and distribution, Rec. IV, 847.
 - marketing, Rec. XII, 275.
 - prices in Italy, Rec. VII, 73.
 - in Argentina, Rec. VIII, 157.
 - notes, Rec. VI, 347.
 - statistics, Rec. VIII, 442.
- refuse—
 - analyses, Rec. III, 9, 571; XI, 528.
 - for cotton, Rec. V, 332.
- scouring, Rec. X, 194.
- scouring tanks deposit, analyses, Rec. XII, 39.
- shrinkage, Rec. V, 214; X, 195, 644.
- supply of the world, Rec. V, 1005.
- Swedish, physical properties, Rec. XII, 178.
- waste, analyses, Rec. I, 17, 80; II, 419, 481, 581, 654, 666; III, 8, 299, 357, 530, 864; IV, 26, 903; V, 164, 290; VI, 202, 797; VII, 294, 669, 854; VIII, 877, 966; IX, 636, 919, 935; X, 428, 623, 1031; XII, 39, 907.
- wax, studies, Rec. VII, 566.
- weight per fleece, Rec. III, 107.

Woolen rags, analyses, Rec. VII, 111.

Woolens—

- insects affecting, Rec. VI, 655; IX, 64.
- protection from insects, Rec. V, 517.

Woolly—

- aphis. (See APHIS, WOOLLY.)
- butt, commercial value, Rec. VIII, 28.
- cudweed, notes, Rec. IX, 956.
- loco weed, notes, Rec. X, 516.
- mullein, notes, Rec. IX, 1024; X, 359.
- plantain, notes, Rec. X, 343.

Work—

- effect on—
 - milk production, Rec. VIII, 536; X, 993.
 - quality of milk, Rec. VIII, 441.
- maximum, principle, Rec. VI, 163.
- muscular effect on metabolism of dogs, Rec. IX, 680.

Working women, boarding houses and clubs for, Rec. IX, 980.

Workrooms in bakeries, Rec. IX, 1078.

World's Columbian Exposition—

- agricultural congresses at, Rec. III, 141; IV, 402; V, 269.
- apiarian exhibit, Rec. V, 900.
- chemical exhibit, Rec. III, 632.
- foreign entomological exhibit, Rec. V, 900.
- foreign visitors to, Rec. IV, 992.
- horticultural lessons, Rec. VI, 993.
- insect collections, Rec. V, 900.

- World's Columbian Exposition—Continued.
 station exhibit, *Rec. III*, 141; *IV*, 402.
 test of dairy breeds, *Rec. III*, 362.
 wool exhibit, *Rec. III*, 755.
- World's—
 market for American products, *Rec. VII*, 164,
 259, 433, 531, 812; *VIII*, 175, 637.
 sugar production, *Rec. IX*, 898.
- Worm—
 diseases affecting American horses, *Rec. XI*,
 191.
 holes, prevention in timber, *Rec. XII*, 456.
- Worms—
 as affected by cold, *Rec. IX*, 423.
 parasitic, *Rec. IX*, 274, 1092.
 parasitic, in Hawaiian Islands, *Rec. XII*,
 889.
- Wormseed mustard, notes, *Rec. IV*, 167, 699.
- Wormwood—
 as a forage plant in India, *Rec. V*, 128.
 notes, *Rec. III*, 52, 522; *IV*, 699.
- Wort—
 as affected by hot tannin, *Rec. VIII*, 462.
 cane sugar in, *Rec. V*, 538.
 nitrogenous materials, *Rec. VI*, 377.
- Worts and yeasts, determination of sugar, *Rec. IX*, 25.
- Wounds—
 and their treatment, *Rec. VIII*, 1015.
 antiseptic treatment, *Rec. IV*, 74, 360; *VIII*,
 335.
 in plants, healing, *Rec. XI*, 116.
 woody plants, healing, *Rec. VIII*, 792.
- Wreck and casualty chart of the Great Lakes,
 1894, *Rec. VI*, 876.
- Wrecks and casualties on the Great Lakes, 1895–
 1897, *Rec. X*, 125.
- Wych elm leaves, ash analyses, *Rec. XII*, 1006.
- Wyoming—
 agricultural survey of, *Rec. IV*, 956.
 coal and oil—
 analyses, *Rec. VI*, 942.
 fuel value, *Rec. VI*, 942.
 experiment farms, geology of, *Rec. V*, 567.
 flora of, *Rec. VIII*, 956.
- Xanthin—
 bases in sugar cane, *Rec. XI*, 310.
 formation and combustion, *Rec. XI*, 576.
- Xanthium*— (*See also* COCKLEBUR.)
canadense—
 notes, *Rec. III*, 893; *IV*, 47, 699; *V*, 529;
VI, 732; *IX*, 142.
 root system, *Rec. IV*, 46.
spinosum, notes, *Rec. III*, 598; *V*, 263; *VI*, 822;
VII, 38, 135, 689; *IX*, 454, 653; *XII*, 961.
strumarium—
 analyses, *Rec. III*, 629.
 notes, *Rec. III*, 598; *VI*, 145; *VIII*, 234,
 626; *XI*, 858.
 law regarding, *Rec. I*, 323.
trypeta, notes, *Rec. II*, 746.
- Xanthocephalus xanthocephalus*, *Bul. 2*, *II*, 93.
- Xanthophyll in leaves, *Rec. VII*, 749.
- Xanthosma sagittifolium*, analyses, *Rec. XII*, 1076.
- Xanthoxylum*—
americanum, notes, *Rec. III*, 521; *IV*, 656.
clava herculis, notes, *Rec. VI*, 821.
- Xenia—
 in maize, *Rec. XII*, 717.
 of corn, studies, *Rec. XI*, 1016.
 review of literature, *Rec. XII*, 421.
- Xerophlea viridis*, notes, *Rec. IX*, 153.
- Xertobium tessellatum*, notes, *Rec. VI*, 742.
- Xestocephalus*—
fulvocapitatus, n. sp., notes, *Rec. VI*, 564.
pulicareus, n. sp., notes, *Rec. VI*, 564.
tessalatus, n. sp., notes, *Rec. VI*, 564.
- Ximenia americana*, parasitism, *Rec. XI*, 467;
XII, 966.
- Xiphidium*—
brevipenne on cranberry bogs, *Rec. IV*, 565.
fasciatum on cranberry bogs, *Rec. IV*, 565.
- Xiphidium, species, *Rec. X*, 374.
- X. O. dust—
 as an insecticide, *Rec. II*, 415; *III*, 54.
 for asparagus beetle, *Rec. III*, 298.
 cucumber beetle, *Rec. II*, 292.
 white cabbage butterfly, *Rec. III*, 298.
- Xyelidæ, notes, *Rec. X*, 374.
- Xylan—
 determination in peach stones, *Rec. X*, 716.
 hydrolysis, *Rec. IV*, 516.
 in covering of starch grain, *Rec. X*, 716.
- Xyleborus*—
cryptographus, notes, *Rec. XI*, 564.
dispar—
 affecting elm trees, *Rec. XI*, 762.
 notes, *Rec. X*, 866.
forficatus, notes, *Rec. XI*, 273.
fuscatus, notes, *Rec. VIII*, 905.
morigerus, notes, *Rec. V*, 901.
obesus, notes, *Rec. X*, 168.
perforans, notes, *Rec. X*, 165, 975; *XI*, 174;
XII, 1067.
pabescens, notes, *Rec. IX*, 670.
pyri, notes, *Rec. IV*, 417; *VI*, 740; *XII*, 68.
saxoseni, notes, *Rec. IX*, 471.
solidus, notes, *Rec. XII*, 367.
tachygraphus, notes, *Rec. IX*, 670.
- Xyleborus*, fungus food, *Rec. VII*, 791.
- Xyletinus peltatus*, notes, *Rec. IX*, 855.
- Xyleutes robinix*, notes, *Rec. III*, 47.
- Xylina*—
antennata notes, *Rec. VIII*, 803; *X*, 1067.
grotei, notes, *Rec. VIII*, 803.
laticinerea, notes, *Rec. VIII*, 803.
 spp., notes, *Rec. XI*, 863.
- Xylococcus betula*, notes, *Rec. X*, 1062.
- Xylocopa virginica*, notes, *Rec. IX*, 965.
- Xylocrius agassizii*, notes, *Rec. XI*, 863; *XII*, 364.
- Xylophasia devastatrix*, notes, *Rec. VI*, 915; *VIII*,
 66.
- Xylose—
 and phloroglucin, *Rec. VI*, 376.
 as affected by nitric acid, *Rec. VII*, 271, 557.
 related to glycogen formation, *Rec. V*, 1031;
VI, 75.
 digestibility of, *Rec. II*, 685.
 ester-like compounds of, *Rec. VI*, 966.
 in gum of different plants, *Rec. IV*, 86, 385.
 wheat and oat straw, *Rec. V*, 145.
 occurrence in plants, *Rec. III*, 925.
 preparation, *Rec. IV*, 385.
 preparation and properties of, *Rec. II*, 685.

- Xylotrechus*—
nauticus, notes, Rec. III, 812.
quadrinaculatus, notes, Rec. X, 168.
quadrupes—
 affecting coffee, Rec. XI, 1060, 1065.
 remedies, Rec. XII, 775.
 notes, Rec. VII, 146.
- X-rays. (See ROENTGEN RAYS.)
- Yakutat Bay, Alaska, botany, Rec. VII, 751.
- Yam—
 Chinesé, notes, Rec. VI, 636.
 new, description, Rec. XII, 852.
- Yams—
 analyses, Rec. XII, 1076.
 culture, Rec. VIII, 313.
 culture—
 experiments, Rec. VIII, 128; IX, 243.
 in the West Indies, Rec. XI, 1047.
 notes, Rec. XII, 345.
- Yard—
 goose grass, analyses, Rec. V, 64, 65.
 grass, notes, Rec. I, 183.
- Yarrow—
 analyses, Rec. III, 629, 893.
 notes, Rec. II, 601; III, 52; IV, 653; V, 910;
 XII, 328.
- Year—
 ring formation, Rec. VII, 277.
 rings as related to anatomical structure of
 wood, Rec. V, 820.
- Yeast—
 as related to osmosis, Rec. VII, 928.
 ascus formation, Rec. VII, 95.
 carbohydrates of, Rec. V, 922; VI, 869.
 cells—
 granulation, Rec. VII, 659.
 organization, Rec. IV, 870.
 plasma, notes, Rec. XII, 916.
 variation, Rec. VII, 659.
 compressed, determination of starch, Rec.
 VI, 15; VII, 71.
 cultures in wine making, Rec. IV, 873.
 cytological studies, Rec. X, 322.
 effect—
 of different salts, Rec. VI, 507.
 phenic acid, Rec. VI, 507.
 extract, proteolytic diastase, Rec. XI, 715.
 fermentation, Rec. III, 926; X, 25, 124, 322.
 fermentation—
 as affected by fluorids, Rec. III, 553, 655.
 without, Rec. XI, 715.
 form of apple black rot, Rec. X, 865.
 fungi of grapes, Rec. VII, 311.
 growth and alcohol production during fer-
 mentation, Rec. IV, 517.
 influence of disinfectants on, Rec. V, 650.
 methods of examination, Rec. XII, 1076.
 new, fermenting milk sugar, and causing
 cheese to swell, Rec. V, 1097; VI, 343.
 nitrogenous materials, Rec. VI, 377.
 Pasteur's pure, Rec. V, 435.
 pathogenic, in milk, Rec. XII, 1080.
 preservation—
 by hydrofluoric acid or fluorids, Rec. IV,
 782.
 in sugar solutions, Rec. VII, 928.
- Yeast—Continued.
 purification by Effront's method, Rec. IV, 782.
 replacement by carbonic acid in bread mak-
 ing, Rec. V, 733.
 selected and purified, fermentation with,
 Rec. III, 926.
 species and sugar-forming fungi, Rec. VII,
 279.
 spores, investigations, Rec. V, 254.
 study of the Boston supply, Rec. XII, 780.
 use in—
 making currant wine, Rec. XII, 795.
 quantitative determination of ferment-
 able substances, Rec. IV, 782.
 waste, utilization, Rec. XII, 177.
- Yeasts—
 alcohol, genetic relation to molds, Rec. XI,
 125.
 alcoholic enzym, Rec. IX, 923; XI, 123.
 and musts, sterilization, Rec. X, 322.
 as affected by—
 high temperature, Rec. IX, 626.
 light, Rec. VIII, 670; IX, 329.
 nitrogen, Rec. XI, 125.
 slaked lime, Rec. VII, 928.
 beer, variation, Rec. VIII, 472; X, 322.
 characteristics as affected by culture medium,
 Rec. IX, 1029.
 dextrin fermenting, Rec. VIII, 472.
 dried, vitality, Rec. VIII, 867, 959.
 formation of enzymes, Rec. VII, 658, 659; XII,
 915.
 glycogen in, Rec. VII, 557; VIII, 105.
 in agricultural practice, Rec. XI, 125.
 cider making, Rec. VI, 485.
 lactic acid, studies, Rec. IX, 628.
 length of generations, Rec. XII, 118.
 morphology, Rec. VIII, 473; X, 322.
 multiplication without fermentation, Rec.
 XII, 118.
 nuclear studies, Rec. V, 618; X, 123, 612.
 nutrition, Rec. XI, 715.
 pathogenic properties, Rec. IX, 923.
 physiology and morphology, Rec. VIII, 472;
 XII, 915.
 pure—
 cultures, Rec. IV, 517; VII, 278; VIII, 473.
 in wine making, Rec. VII, 719; IX, 696,
 895; X, 96; XI, 126; XII, 794.
 red, studies, Rec. VII, 659; X, 122.
 Russian, spore formation, Rec. X, 224.
 selected, in wine making, Rec. IV, 873; V,
 928; VI, 251; XII, 195.
 sterilization, Rec. X, 322.
 study of, Rec. V, 345, 650, 1028.
 use of selected, Rec. X, 123.
 vitality, Rec. XII, 118.
- Yellow—
 daisy, Rec. IX, 846.
 dock—
 law regarding, Rec. I, 324.
 notes, Rec. IV, 47, 334.
 fever—
 etiology and pathology, Rec. IX, 195.
 notes, Bul. 2, II, 119.
 transmission by insects, Rec. XI, 995.

Yellow—Continued.

- rocket—
 - composition, Rec. X, 1083.
 - notes, Rec. V, 398.
 - root system, Rec. IV, 46.
- stalk fly, remedies, Rec. VII, 517; VIII, 69.
- wood, notes, Rec. VIII, 314.
- woolly bear, notes, Rec. VIII, 806.

"Yellow gall," streptococci, Rec. VI, 666.

Yellowstone Hot Springs, plants growing in, Rec. IX, 624.

Yerby, N. H., notes, Rec. XII, 1015.

Yew—

- American, notes, Rec. V, 54.
- forests in England, Rec. VI, 223.
- galls, notes, Rec. XI, 766.
- leaves, cattle poisoning by, Rec. V, 1033.
- poisoning, Rec. IV, 615.
- trees—
 - notes, Rec. VII, 962.
 - of Great Britain and Ireland, Rec. IX, 453.

Yews, distribution in Germany, Rec. IX, 757.

Y-moth, notes, Rec. VI, 65.

Yorkshire pigs—

- feeding experiments, Rec. III, 131, 392; IV, 68.
- notes, Rec. II, 642.

Yucca—

- aloifolia*, notes, Rec. XI, 220.
- brevifolia*, notes, Rec. XI, 220.
- filamentosa*—
 - notes, Rec. IV, 654; XI, 220.
 - seed production, Rec. XII, 855.
- filiifera*, notes, Rec. XI, 220.
- gloriosa*, notes, Rec. XI, 220.

Yucca—

- insects, notes, Rec. V, 327.
- pollination, Rec. V, 327.

Yuccas of Death Valley, California, Rec. V, 91.

Yukon—

- district, agricultural possibilities, Rec. X, 97.
- River region, biological reconnaissance, Rec. XII, 830.

Yule, notes, Rec. XII, 344.

Zachrestia dimidiata, n. sp., notes, Rec. VI, 739.

Zaglyptus kineaidii, notes, Rec. V, 901.

Zaitha fluminca, notes, Rec. I, 292; VI, 236.

Zaluzania, revision of genus, Rec. XI, 121.

Zamia—

- fertilization, Rec. IX, 421.
- poisoning of cattle, Rec. X, 497.

Zamia integrifolia, analyses, Rec. IX, 225.

Zapodidae in Idaho, Rec. III, 184.

Zapus, revision, Rec. XI, 429.

Zea—

- amylacea*, notes, Rec. VI, 275.
- amyleasaccharata*, notes, Rec. VI, 275.
- everta*, notes, Rec. VI, 275.
- indentata*, notes, Rec. VI, 275.
- indurata*, notes, Rec. VI, 275.
- mais*. (See CORN.)
- mays*. (See CORN.)
- saccharata*, notes, Rec. VI, 275.
- tunicata*, notes, Rec. VI, 275.

Zebra—

- and horse, crossing, Rec. X, 679.
- caterpillar, Rec. X, 164, 165, 766, 871, 1067.

caterpillar—

- in California, Rec. IV, 852.
- notes, Rec. III, 97; V, 631, 685, 791; VII, 144; VIII, 146, 321, 418; XI, 762, 955.
- on currants, Rec. IV, 416.
- parasites, Rec. IX, 856.

hybrids, Rec. XII, 178.

Zebras—

- breeding, Rec. IX, 72; XI, 1077.
- breeding experiments with mares, Rec. XI, 1077.

Zebu, crossing with native cattle, Rec. VII, 617.

Zenodozus mexicana, notes, Rec. IX, 1070.

Zephyranthes atamasco, notes, Rec. XII, 1045.

Zengites—

- pringlei*, notes, Rec. X, 516.
- smilacifolia*, notes, Rec. VII, 748.

Zeugophora, estivation, Rec. XI, 656.

Zeuzera—

- resculi*, notes, Rec. VIII, 69; XI, 564, 765; XII, 166.
- cofear*—
 - affecting coffee, Rec. XI, 1065.
 - notes, Rec. VII, 593.
- pyrina*, notes, Rec. III, 298; VI, 649, 651; VII, 696; VIII, 69, 911; IX, 67.

Zinc—

- action—
 - in the reductor, Rec. VII, 271.
 - on metallic solutions, Rec. V, 538.
- chlorid as a fungicide, Rec. V, 684.
- determination, Rec. XI, 618.
- determination in foods, Rec. VIII, 537, 742.
- in evaporated apples, Rec. II, 504; VI, 297, 992; VIII, 132.
- soil, effect on plants, Rec. XI, 325.
- water, Rec. X, 315.
- iron method for nitrates, Rec. V, 464.
- oxid as an antiseptic, Rec. IV, 360.
- sulphate—
 - as a fungicide, Rec. V, 684.
 - effect on algæ and fungi, Rec. XII, 1014.
 - effect on germination of seeds, Rec. V, 882.
 - for fractional precipitation of peptic digestion products, Rec. XI, 510.
 - potato scab, Rec. IV, 560.
 - precipitating albumoses, Rec. VII, 737.

Zingiberaceæ, notes, Rec. V, 915.

Zinnia, revision of genus, Rec. VIII, 470.

Ziroons, analyses, Rec. XI, 230.

Zizania aquatica. (See RICE, WILD.)

"Zomonia" for rose chafer, Rec. III, 171.

Zomotherapy for tuberculosis, Rec. XII, 791.

Zone—

- perimedullary, Rec. V, 1028.
- reactions, test tube for, Rec. V, 251.

Zones, Watson's climatic, Rec. X, 223.

Zoological work in 1896, Rec. IX, 1032.

Zoologist of England, report, **Rec. XI**, 765.

Zoology—

agricultural text-book, **Rec. XI**, 427.

concrete, treatise, **Rec. IX**, 926.

economic, notes, **Rec. II**, 374.

International Congress, **Rec. XII**, 799.

principles of, **Rec. VIII**, 474.

study, **Rec. IX**, 530.

text-book, **Rec. IX**, 729.

yearbook, **Rec. XII**, 423.

Zootechnical instruction in Italy, **Rec. IV**, 329.

Zophodia convolutella, notes, **Rec. X**, 65.

Zostera marina—

analyses, **Rec. IV**, 715.

notes, **Rec. IV**, 715.

Zürich, Switzerland, Seed Control Station, reports,
Rec. V, 121, 821, 910; **VII**, 510; **IX**, 454; **XI**, 155;
XII, 456.

Zwieback, analyses, **Rec. X**, 475.

Zygadenus paniculatus, poisoning cattle, **Rec. X**,
297.

Zygmorphic flowers, **Rec. VI**, 280.

Zygodesmus albidus, notes, **Rec. III**, 307; **IV**, 54;
X, 449.

Zygogcomys trichopus, notes, **Rec. VI**, 787.

Zymase—

action, **Rec. XII**, 908.

Buchner's, notes, **Rec. XII**, 916.

from dead yeast, **Rec. XII**, 916.

Zymotechnical Laboratory at Rome, Italy, **Rec.**
IV, 238.

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